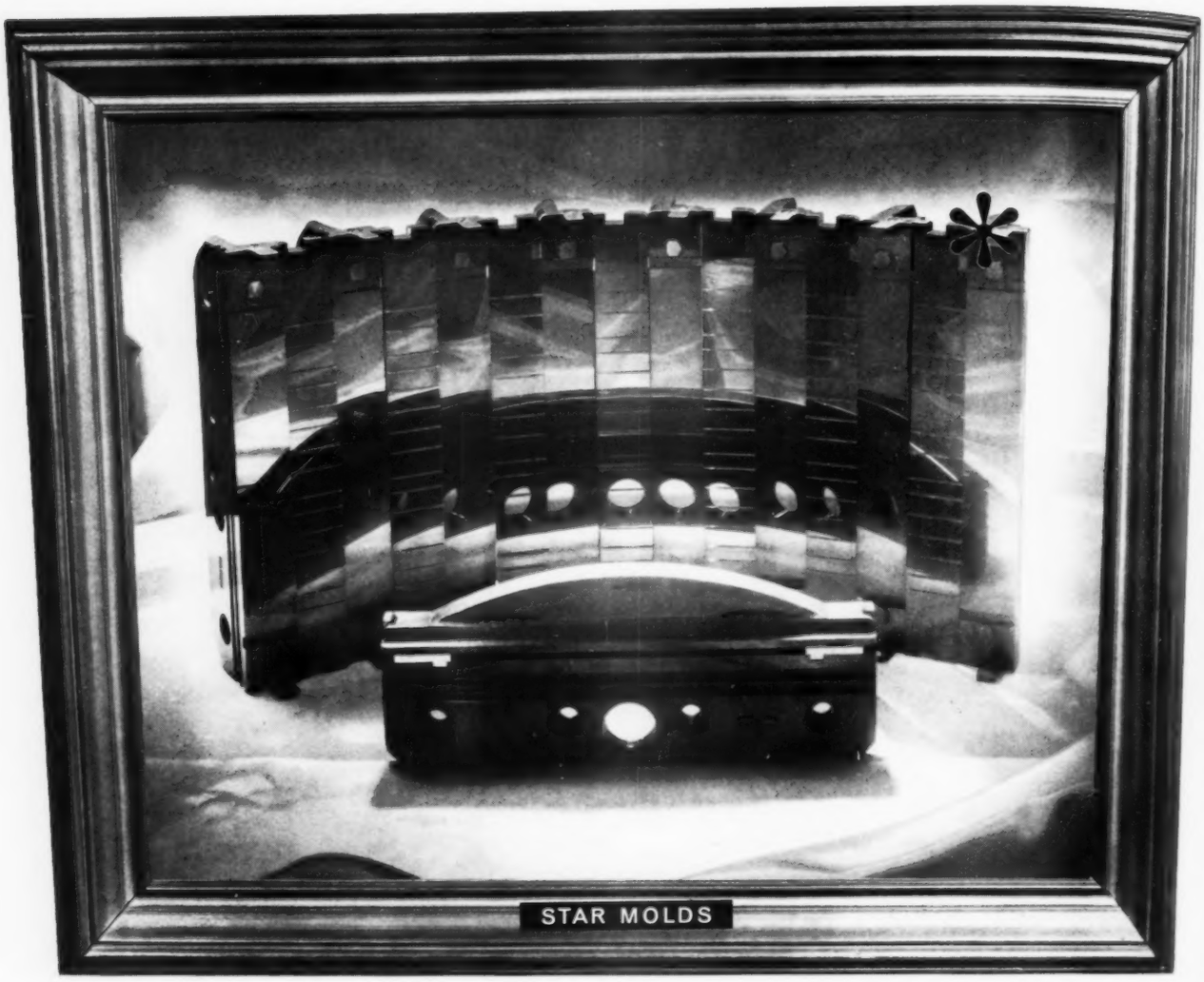
PRINTING PRODUCTION

SEPTEMBER 1941

Litho's Unsolved Problem

PRODUCTION MAGAZINE FOR PRINTERS AND LITHOGRAPHERS

A picture of VISIBLE QUALITY



Every Star Mold is as perfect as the ones shown here . . . so you can be certain of quality when you specify Star. The prices are right too.

Because *true* slugs can only be cast from true molds, we wanted to demonstrate to you the accuracy and precision manufacture that goes into *every* Star Mold. So, nine Universal Adjustable molds were taken from stock—at random. The protective oil and fingerprints were removed—that's all. We used no special polish or treatment. The caps and bodies were arranged to show their "mirror" surfaces—a quality that can be achieved only through perfection in manufacture. The result is graphically shown in the unretouched photo above.

Precision TRADE ★ MARK Parts ®

STAR PARTS, Inc.

SOUTH HACKENSACK, N. J.

BRANCH: 1327 BROADWAY, KANSAS CITY, MO. **AGENCIES:** CHICAGO • MINNEAPOLIS • LOS ANGELES • DENVER

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1-320

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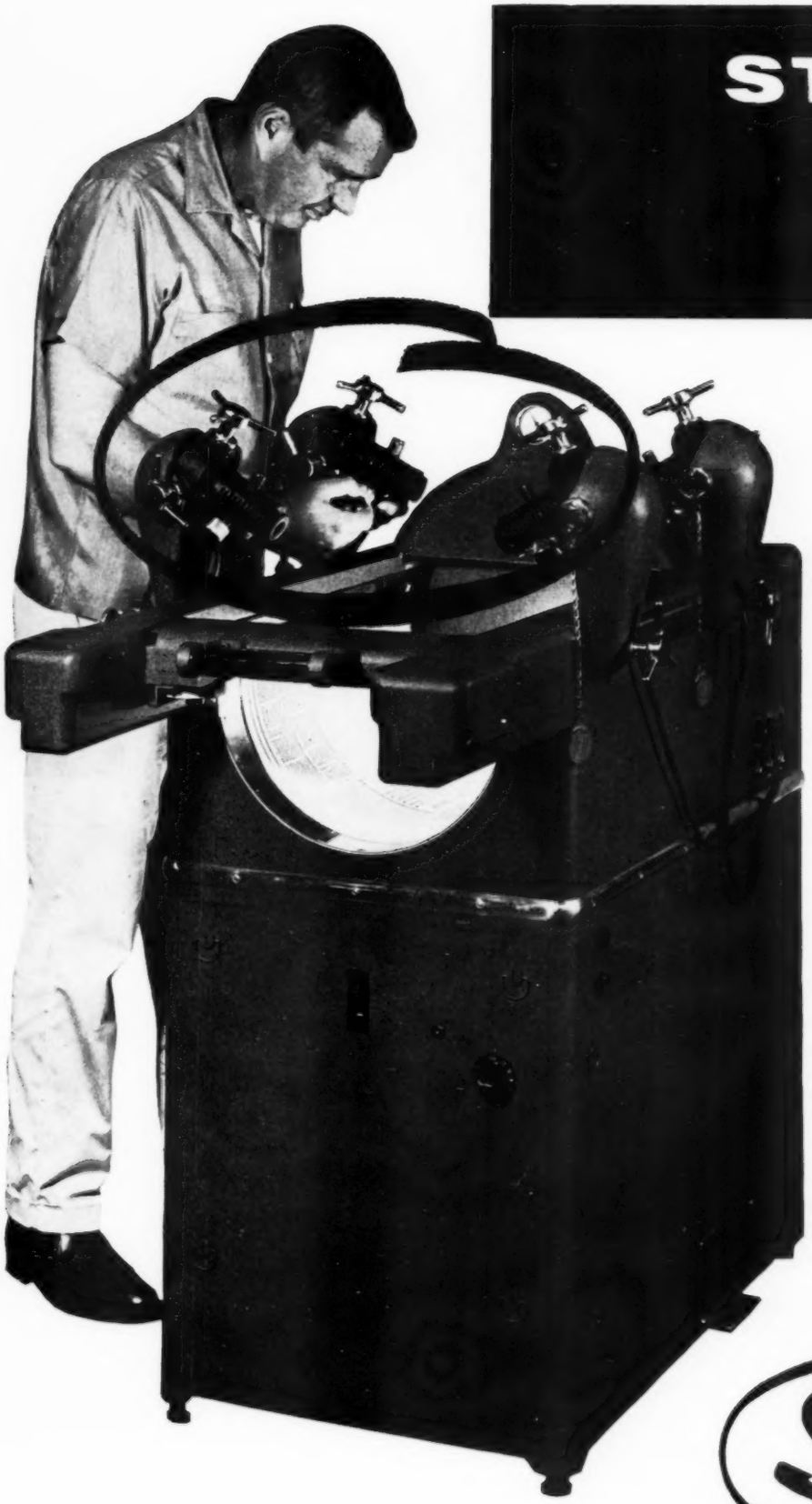
for precision color registration of newspaper stereo mats...

STA·HI



now used by close to half a hundred progressive newspapers

builders of precision newspaper equipment for **33** years...

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235 W. WASHINGTON BOULEVARD WHITTIER, CALIFORNIA

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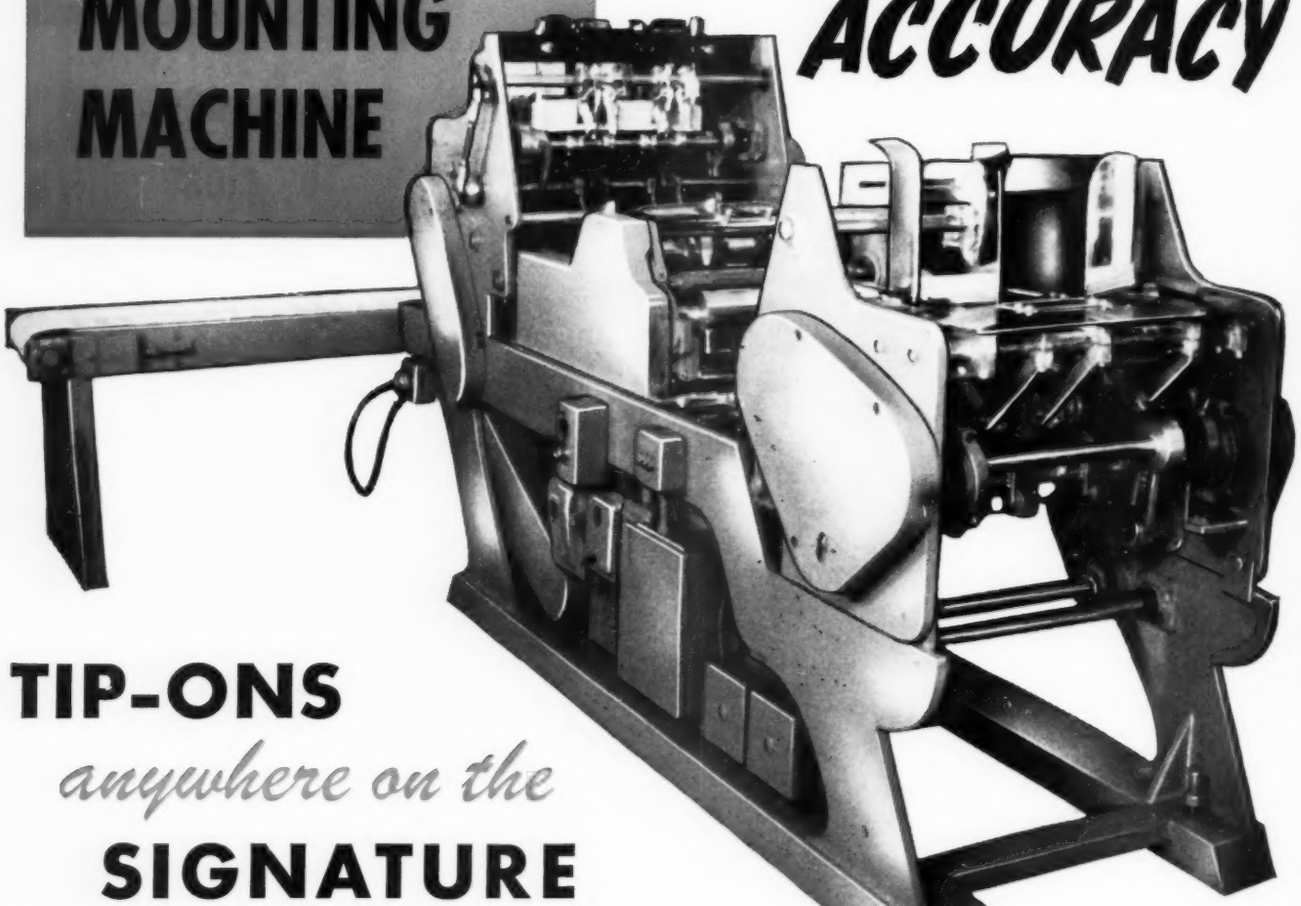
MAGNACRAFT Model TM-61 TIPPING and MOUNTING MACHINE

SIGNATURE TIP-ONS

at speeds up to 10,000 per hour with

DEAD-ON ACCURACY



TIP-ONS *anywhere on the* SIGNATURE

Magnacraft's new Model TM-61 can place a tip-on anywhere on the signature, or by dividing the tip hopper in half, two tip-ons can be placed at the same time on one signature, or one signature can be placed on another at speeds up to 10,000 per hour.

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Write today for info on the TM-61. No obligation!

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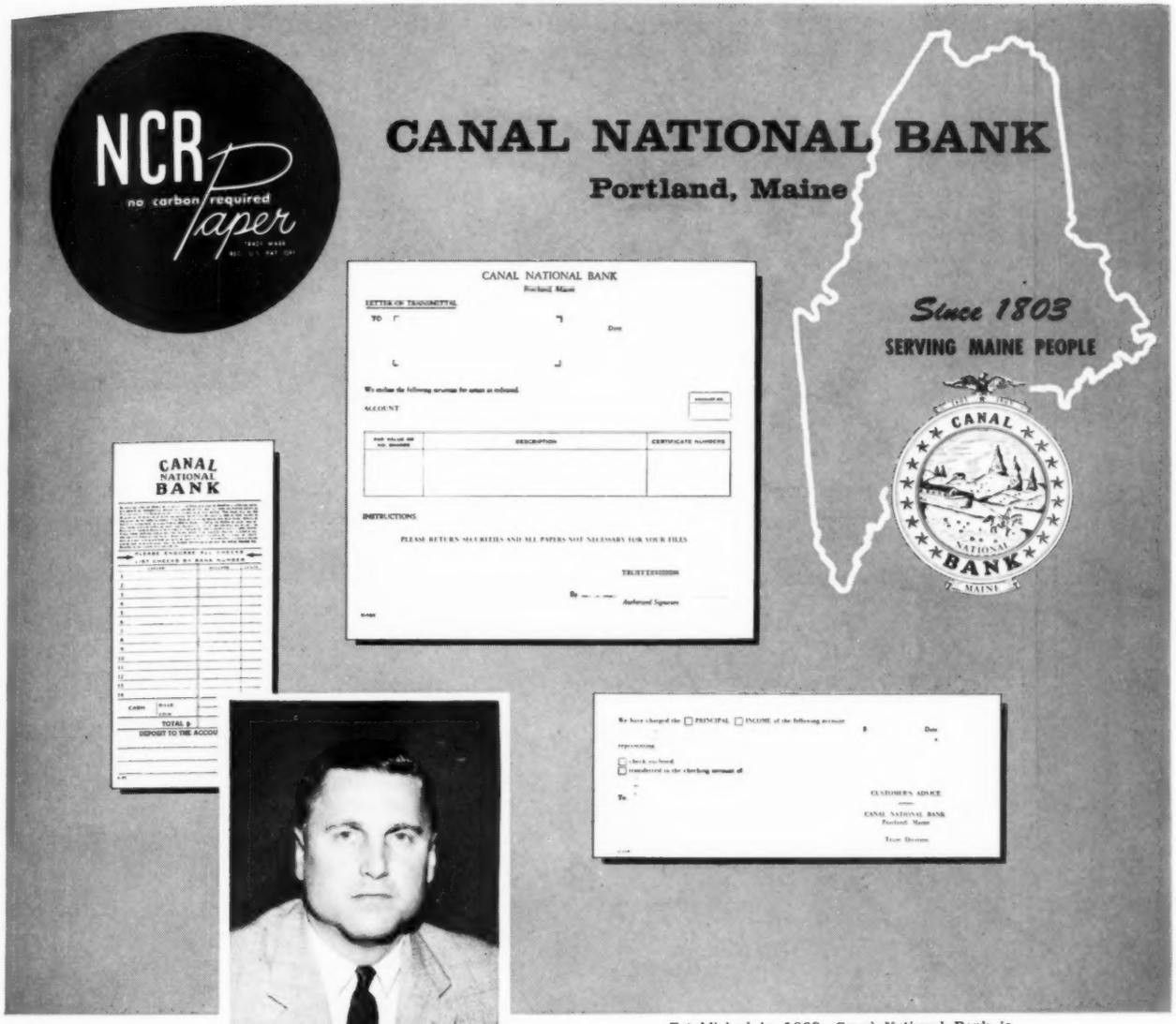

Established in 1803, Canal National Bank is one of the oldest names in American banking.

William D. Ireland, Jr.
Executive Vice President of
Canal National Bank.

"NCR PAPER saves us its entire cost every year."

— CANAL NATIONAL BANK, PORTLAND, MAINE

"We have used NCR Paper (No Carbon Required) for a number of years to provide our Regular Checking Account customers with duplicate deposit slips.

"Due to the fine results we have had, our use of NCR Paper has been expanded to other forms. These range from three-part Mortgage Notices to five and six-part Trust Department tickets.

"NCR Paper is faster and cleaner than carbon paper. Originals and copies are picked up as complete units, without having to insert and remove carbon paper. In addition, the intangible value of customer goodwill has been increased since we began using NCR Paper forms.

"Our cost figures reveal that the additional price paid for NCR Paper is repaid every year by the time saved in preparing and handling NCR Paper forms."

William D. Ireland Jr.

Executive Vice President

It's the cost-in-use rather than the purchase price that determines the true cost of your multiple-copy forms. Invest in NCR Paper forms and get dividends through time saved and increased record-keeping efficiency for your business.

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Another Money-Saving Product of

THE NATIONAL CASH REGISTER COMPANY, Dayton 9, Ohio

1039 OFFICES IN 121 COUNTRIES • 77 YEARS OF HELPING BUSINESS SAVE MONEY

NCR PAPER ELIMINATES CARBON PAPER

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THAT LITTLE DIFFERENCE . . .

A fraction of a point often separates finalists in competitive diving. A shoulder dipped a bit too so
a hand held a little too high in any one dive often makes that *little difference* in the final standi

In sports, in business, in life itself, so *little difference* separates the very best from those who just miss the m

In the Printing Industry, it's often just a *little extra* practical knowledge that makes some Production Management M
outstanding. They often find this information in PRINTING PRODUCTION. It is the *only* magazine edited especially for th

PRINTING PRODUCTION *Magazine*

SEPTEMBER 1961
VOL. 91, NO. 12

PRINTING PRODUCTION

Published especially for management, production and mechanical executives responsible for printing production and the specification of equipment and supplies used in all major processes of the Graphic Arts industry.

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THE COVER: The familiar spread of chemical coating on a plate was Artist Tony Dennison's main impression of a litho platemaking shop. He shows the platemaker posed at the whirler as he introduces the sensitizer to metal. Our story on page 38 also deals with the offset platemaker, but takes a different approach from that of our artist. We tried to resolve the question: Should the litho printer make his own plates or buy them from a trade platemaker? You will read good arguments in favor of doing it both ways. After listening to adherents of each side we feel that perhaps *Litho's Unsolved Problem* is resolved in favor of retention of both methods of operation. The trade platemaker has found he is needed by the printer, while the printer has good reasons for operating his own platemaking department.

LETTERS TO THE EDITORS

We Liked These Letters

We have received and read with great interest your August 1961 issue (*Printing in Chicago*). Since the majority of our products are sold in the Chicago market, we have found this issue to be of particular interest.

Henry W. Parnass, Sales Mgr.
Watervliet Paper Co.
Watervliet, Mich.

I have been a regular subscriber to your magazine for six years and a reader for 10 years. The Idea File feature is especially interesting and helpful to me as a machinist. I have benefitted many times.

Clark Fordham, Machinist
News-Review Company
Roseburg, Ore.

Please start sending me your magazine . . . I keep borrowing your issues, and I'm rather disgusted with myself because I haven't subscribed to your very informative magazine before.

Kenneth M. Pell
Erie, Pa.

For many, many years I have felt that PRINTING PRODUCTION is one of the outstanding publications in the Graphic Arts industry. I have always encouraged my students and my employees to subscribe to this magazine so that they can be better informed and more valuable in serving the Graphic Arts and printing industries.

A. M. (Bert) Fellows, Head
Printing Department
Calif. State Polytechnic College

I wish to thank PRINTING PRODUCTION and the others responsible for my four year subscription to your magazine. As a student at the Southern Institute of Graphic Arts, Nashville, I will find the magazine most interesting and helpful in keeping up-to-date on the latest information in the Graphic Arts field. It makes a beginner feel good to realize that someone is taking an interest in helping young people learn the technical aspects of the Graphic Arts industry.

Lisle T. Caldwell
Nashville, Tenn.

EDITOR'S NOTE: Lisle T. Caldwell is one of the outstanding printing students in the United States awarded a four year subscription to PRINTING PRODUCTION last June. This award has been sponsored for over a decade.

Typesetter Offers Views on Following Copy

I have a feeling that the article in the July issue of PRINTING PRODUCTION by John M. Maddigan entitled *How Far Should Printers Follow Copy?* will draw more mail than you've seen in a long time. And it well should, since every typophile worthy of his craft is certain that he knows more than anyone else, including the customer, the agency and the proofreader.

I personally find one large bone of contention in the article. Maddigan constantly refers to printers, advertising agencies and the like, overlooking (conveniently?) the fact that the copy is handled by the typesetters *ab initio*. More work is handled by small commercial printing plants than by those employing staffs of proofreaders or others educationally capable of detecting, correcting and selecting *errata*.

It is ridiculously obvious that when an organization such as ALCOA (referred to in the article) has a "five-man editorial committee" to pre-check copy, that the printer (or typesetter) do any more than is absolutely required of him is silly. But what practice should be followed when the laundry has its price list done by the local printer (who does *not* have an editorial committee) and leaves the letter "r" out of the word "shirt"? (An actual occurrence, by the way.)

The vast majority of work done in printing (in jobs done, not in dollar volume) is in the field of so-called job printing. Most of the time, this printer is too busy getting business, setting it, printing it, and collecting for it, to pay too much attention to any one particular facet. No matter how careful, errors *will* creep in. If, therefore, he can trust any of his supply specialists along the way, such as the Linotyper, the bookbinder, etc., he is sincerely grateful when he finds that these people have a far greater command of the English language than he has (because the proper use of English is their specialty) and that, with rare exceptions, he can trust them all implicitly.

The ad agency has the time, the facilities, the money and the personnel to make absolutely certain that perfection is achieved. The job printer and his suppliers have none of these essentials, but they do have the experience and the knowledge that go with having set work for other firms in the same line of business so that they have a general idea of what's what. We know, for example, that "aluminum" in the United States is "aluminium" in Canada and England, if only because Alistair Cook popularized the difference. We know that "petit fours" on the menu is not spelled "fors" although the caterer who supplied the copy for the menu did not.

From the standpoint of ethics, it is just as easy to do something right as to do it wrong, if you know the difference. Besides, there is a matter of pride. If my name is to be associated in any way with a particular job, I want it linked as a good name, not as the one responsible for an error that, if copy were followed, would place the onus directly on me as the primary culprit.

I have had too many instances where I have been blamed for following the copy, being told that I should have known better, as well as instances where I was blamed for not following the copy. But in a vast majority of instances, I have been thanked for correcting the errors.

There is a new machine, I have read, which will scan copy and teletype it directly. If this is what some agencies want, they can have it. While I am still a sentient human being, I refuse to be a machine.

Irving Schwarz
Stratford Linotype Service
New York, N. Y.

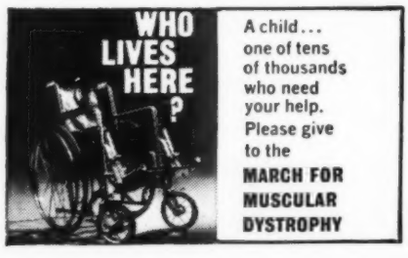
Comment on Editorials

Being an average trade publication reader—and like everyone else—I often intend to sit down and write a letter but never do!

Finally, I have come to a point where I must write. Your magazine is doing a great service to the industry in the editorial approach you have been taking. The needling which you do (perhaps needling is the wrong word) may or may not do good; however, I am delighted to see your editorials.

The manner in which you call attention to the industry's short comings, for instance your editorial on the schools and now the Homer Winkler editorial, has been very impressive. It's about time that the trade journals did something to call attention to the industry's weaknesses.

My background is that of a practical



Now... a "compact" adhesive binder for profitable short runs

The *Martini Autobinder* automatically binds and covers a wide variety of work. It is widely used for economical short runs of magazines, directories, catalogs and similar work.

Versatility

The *Autobinder* can be used also for covering side-stitched or sewn books ... for back gluing of sewn books ... and, with a mull strip attachment, for adhesive binding of books for casing-in.

Size range

The size range extends from a minimum of 6 x 4" to a maximum of 16 x 10" in thicknesses from 3/16 to 1-3/4". The speed ranges, in stepless variation, from 1500 to 5000 books per hour.

Set-up time

Set-up time, as proven from actual experience in many plants, will be from 15 to 45 minutes depending upon the extent of the changeover. All adjustment controls are conveniently placed and are fitted with knobs or handles for instant use. Precise setting scales are supplied where needed.

Operating cycle

The operating cycle commences with the placing of the gathered signatures into the self-opening clamp. After automatic jogging, the clamp closes and carries the book to a rotary knife where the folds are cut off the backs. A milling disk roughens up the back for increased penetration of the adhesive.

Rotating brushes are used to remove the paper dust left after milling. Two glue rollers are provided to apply the adhesive. Side rollers can be used for applying glue to the side of the book when using four-creased covers. The book is then advanced to the covering station where the cover is fed and attached. At the next station the back is formed and the cover is squared. The bound and covered book is then conveyed under the feeding station to an automatic stacker delivery. Books are stacked spine down on a heated metal delivery table.

Paper scrap and dust from the knife and milling stations are removed by an integral suction system.

Cover feeder

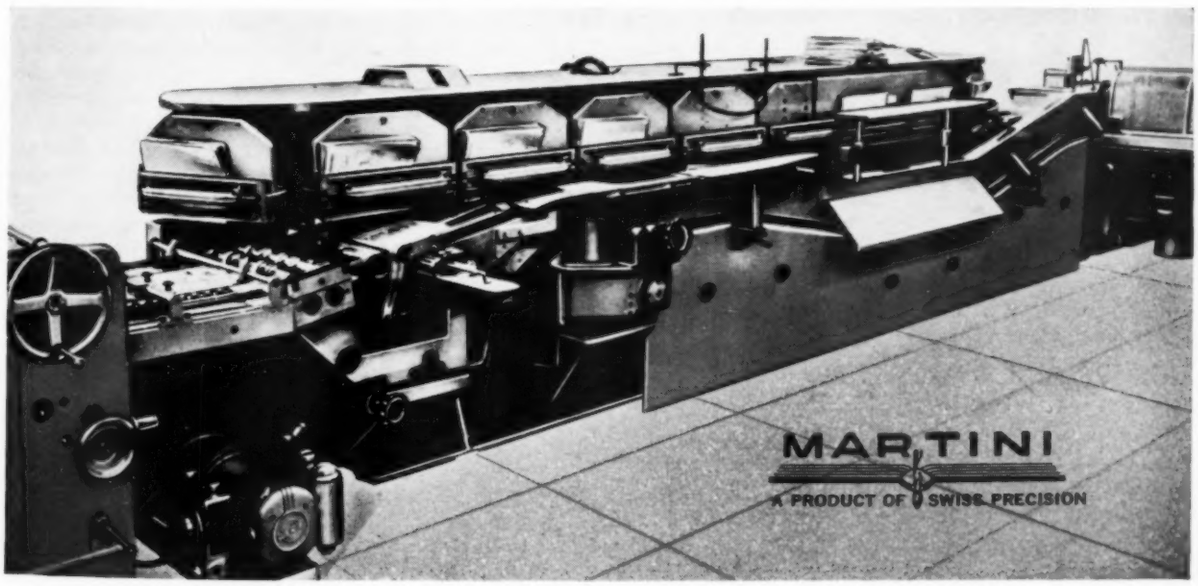
The feed mechanism is of the positive vacuum gripper type. The feed table is equipped with scoring wheels to make two or four creases in the cover. Interlocking controls prevent a cover from being fed unless a book is in position or stop the machine when a cover is not in position for the book.

Mull strip attachment

The Model 2 *Autobinder* provides an attachment for the application of a mull (crash) strip between the book block and the cover when additional strength is required. This attachment can be used also to apply cloth or crepe strip for books which are to be cased-in.

Floor space requirements are the same for both models: 28 x 8 ft.

For further information or an actual plant demonstration, contact the T.W. & C.B. Sheridan Company, 220 Church Street, New York 13, N. Y.



SINCE 1835 SHERIDAN

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printer as well as a printing designer, and I find that you satisfy my interests from both the technical and creative viewpoints. Your format, selection of type faces and quality of printing are very good.

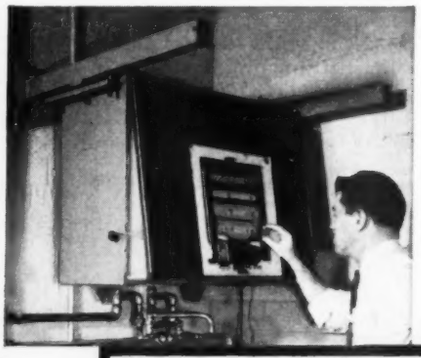
Sol Malkoff
Typography Shop
Atlanta, Ga.

Having attended the conference in Cleveland last May where J. Homer Winkler discussed the need for technical, engineering-type education as one base for future printing management, I want to commend his remarks to your readers. Your July editorial—Wanted (or Needed): Technically Trained Men—summarizes certain of his points, and I hope that the full talk will soon be published.

Carnegie Tech is of course well-equipped to present this sort of technical education, at a challenging standard to its Graphic Arts management students, and our new faculty and laboratories are being planned to do precisely this.

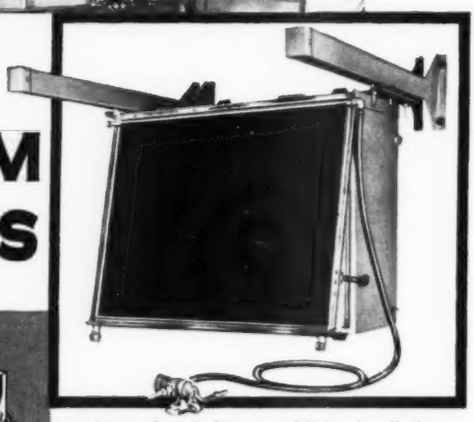
Kenneth G. Scheid, Head
Dept. of Graphic Arts
Carnegie Institute of Technology

quick, safe inspection of negatives & positives



nuArc

DARKROOM SAFELIGHTS



nuArc makes darkroom safelights in all sizes for wall, ceiling or table mounting. Bodies are sturdy steel construction finished in attractive baked silver hammerloid finish.

SAFELIGHTS FOR INSPECTION AND ETCHING

"E" series safelights available in two sizes. Can be supplied with overhead rails and waterflow system for etching and washing plates and film. Big neoprene coated trough and glass frame are chemical-resistant. With ruby and white lights. Green light available in DL-30E.

STANDARD SAFELIGHTS

Ruby light gives highest degree of darkroom illumination consistent with the safety of the materials being processed. In seven sizes.

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NEWS ITEMS

Heads New York Times Photoengraving—Howard Leffel has assumed the post of superintendent of the photoengraving department of the New York *Times*. He succeeds A. C. Mills who announced his retirement, effective Aug. 31.

LEFFEL

DALY

To Direct PIA Public Relations—John Jay Daly has been appointed director of public relations for Printing Industry of America, Inc. A graduate of Georgetown University, Daly was previously a public relations account executive with Ketchum, MacLeod and Grove in Washington D. C. He will be located at PIA headquarters in Washington.

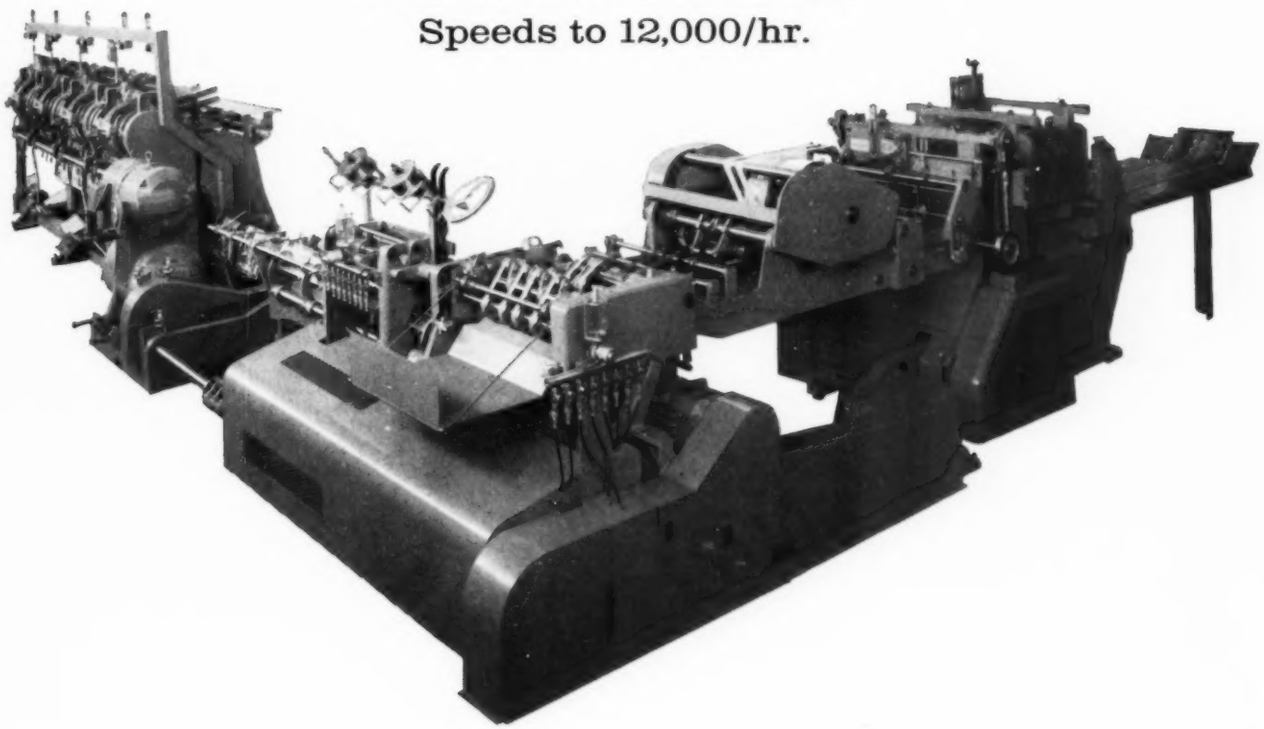
Champion Assumes Three-Way New Look—Champion Papers, Inc., is the recently adapted name of the corporation formerly known as Champion Paper and Fibre Co. The other Champion changes consist of a new headquarters and redesigned corporate symbols. A glass and stone, modern office building is the new home of the company; address is Knightsbridge, Hamilton, O. Illustrated is the new letter symbol consisting of a joined, flowing CP logotype, based upon the company letters and the flow of papermaking. The knight identity symbol of the company has also been redesigned in a stylized, modern manner.

Three Join RIT Staff—Rufus C. Short, Miles F. Southworth and Robert S. Tompkins have joined the faculty of the School of Printing, Rochester Institute of Technology, increasing the school's faculty to 21. Short, who will have an assignment in the area of printing management, holds bachelor degrees from Williams College and Car-

All New McCain UNITIZED

Automatic Saddle Binder

Trim sizes to 15¾" or 18¾"
Speeds to 12,000/hr.



The McCain UNITIZED Saddle Binder is specifically designed for long run publications with tight deadlines. It's profit potential is based on a completely new principle of automatic saddle binding.

Automatic signature feeders of the McCain UNITIZED are *individually* driven and timed to match variable chain spacing, permitting *each size publication to be handled at its own optimum production speed.*

An ultra-sensitive McCain heavy duty caliper and a McCain high speed stitcher were especially developed for the new McCain UNITIZED Saddle Binder. A popular McCain 3-knife trimmer with two-book collecting drum completes the in-line machine. Depending on the job, speeds to 12,000/hr are possible.

The McCain UNITIZED is not recommended where short runs of many sizes are most important. For such work Dexter offers the all-McCain E-20 at speeds to 10,000/hr; the McCain-Christensen combination to 8,000/hr; and the McCain Saddle-Matic at 4,500/hr.

McCAIN BINDERY EQUIPMENT
Sold and Serviced by
THE DEXTER COMPANY
Division of Miehle-Goss-Dexter, Inc.
Chicago 8, Illinois

For More Information Circle 47 on Reader Service Card

negie Institute of Technology. Southworth, who holds a B.S. degree in Vocational Education from the University of Michigan, will serve as an instructor in photolithography. Tompkins, who has had a wide background in editorial and mechanical departments of various newspapers in New York state, will function as an instructor in slug casting composition.

Two Promoted by Illinois Newspaper—Gordon W. Grimmer and Lawrence J. Marx have been promoted to the positions of day composing room foreman and assistant composing room foreman of the Peoria (Ill.) *Journal-Star*. Grimmer joined the Peoria newspaper in 1926; Marx came to the newspaper in the early 1940's.

GRIMMER

MARX

Named Vice President by Dayco—Joseph A. Conlon has been named vice president-sales, Rubber Products Div., Dayco Corporation. He succeeds Robert G. Burson. Sales and general offices of the division (formerly known as Dayton Industrial Products) are maintained in Melrose Park, Ill.

Form West-Graf Corp.—Four Los Angeles printing executives have formed West-Graf Corp. The firm will market a high speed rotary forms printer and carbon glue tipping machinery for use with commercial and in-plant printing equipment. Officers of the company include: Edward A. Possnecke, president; Ray Gonsalves, executive vice president; Donald L. Haslwanter, secretary and vice president-development; and Roger Desautels, vice president-sales and treasurer.

Dunleavy Promoted by RCA—Francis J. Dunleavy has been appointed general manager of the Communications and Controls Div., Radio Corp. of America. He has been associated with RCA since 1959, most recently serving as general manager of Industrial Controls. Among his new responsibilities is direction of the Graphic Arts Products Department.

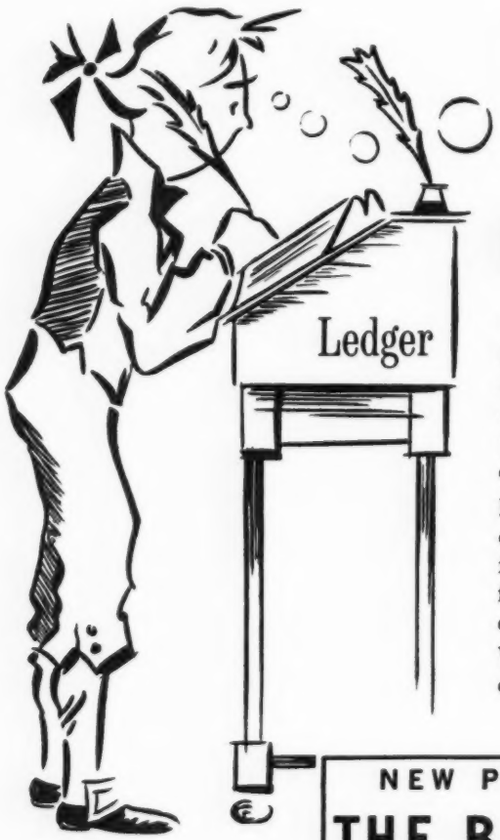
Pittsburgh Firm Elects Officers—Three new officers have been elected by William G. Johnston Co., Pittsburgh print-

GARDNER

FALL

ing firm. They are Harry T. Gardner, vice president, and Albert B. Fall, vice president-sales. John J. Maloney has been elected secretary, a post formerly held by Gardner. Reelected as officers are Harry M. Fritz, president; C. M. Pinkerton, treasurer, and William Merry, assistant secretary.

Duolith Moves Offices—The corporate office of Duolith Presses, Inc., has been moved to 99 S. Lake Ave., Pasadena, Calif., according to Orville Dutro, president. It is stated that the move was made to provide additional space required by the corporation's engineering and consulting commitments.



Hmm . . . Black Ink

The Boys Must Be Using

BEVERIDGE AUTO-PACK MATS

Wherever quality BEVERIDGE AUTO-PACK MATS are used, Stereotype Departments experience economies through ease of handling and faithful first time reproductions. These outstanding one-piece packless mats—are molded with less pressure than standard mats—and retain maximum space depth.

The same economies apply to BEVERIDGE Hi-Speed, a high quality mat for all curved casting equipment, capable of multiple casting—highly compressible, easy to mold, fast drying. BEVERIDGE MULTI-CAST, a favorite mat for automatic autoplate equipment—highly compressible, easy to mold and economical.

Write for complete information, samples or plant demonstration on any of the above Beveridge mats.

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"Daycollan® Rollers give us 50% more service—at lower overall cost..."

says Mr. Raymond E. Beckmeier
Letterpress Foreman
*Leading Midwestern Publishing House**

In one year of operation, our Daycollan Rollers have given us 50% more impressions than we ever obtained with any other type of press roller. What's more, previous rollers usually become grooved after about 10,000,000 impressions and would either be replaced with new rollers or reground. This meant expensive press down-time and the labor of two men to remove, grind and replace the rollers. By switching to Daycollan Rollers, we have eliminated all these expensive and time-consuming operations.

"No loss of tack" "Another point in their favor is the fact that Daycollan Rollers do not lose their tack. Our Daycollan Rollers have the same excellent tack properties today as they had a year ago.

"Easy to clean" "We are particularly pleased with another Daycollan feature . . . ease of cleaning. In our case, the Daycollan Rollers are given on-the-press wash-ups once every shift. Since Daycollans are non-porous, wash-ups take half the time—and less time means less expense.

"Far better ink coverage" "Finally, we have received far better ink coverage, with a more even lay of ink, than was ever possible with other types. And, since Daycollan Rollers do not swell or shrink, we have been spared the time-consuming job of constantly re-setting the rollers in the press."

*Name supplied on request.

©D.C. 1961

Dayco PRINTING PRODUCTS

Dayco

Dayton Industrial Products Co.
Melrose Park, Illinois — Division of Dayco Corporation

Western Distributors: George W. Shively Co., San Francisco; Farwest Ink Co., Seattle; Walter W. Lawrence Co., Inc., Los Angeles;

For More Information Circle 46 on Reader Service Card

New York Firm Purchased—The assets of Michael-Remo & Co. have been purchased by Process Lithographers, Inc., printers for the publishing field. Both firms are located in New York City. Michael-Remo is a Graphic Arts consulting firm specializing in designing and producing magazines, books and commercial printing. Michael Margolies, president of Michael-Remo, has been named vice president-sales of Process.

Mergenthaler Expands Product Line—Product lines of Nolan Corporation and Morrison Company have been added to the one-stop shopping service recently introduced by Mergenthaler Linotype Co. This service is available on a nation-wide basis.

Standard Register Promotions—Robert W. Staneck and Byron C. Hall have been promoted to the positions of manager and assistant manager, respectively, of product engineering at Standard Register Co., Dayton, O. Staneck succeeds the recently retired J. Harold Kroemer, and Hall assumes Staneck's former position.

Power Rejoins M-G-D—John J. Power has rejoined Miehle-Goss-Dexter, Inc., as Cincinnati manager of the Dexter Company Div. He will be responsible for the territory of Southern Indiana, Southern Ohio and Kentucky.

POWER

YOUNG

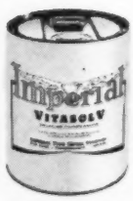
Young to Represent Robinson – R. L. Young has been appointed sales engineer for the Eastern territory of Robertson Photo-mechanix, Inc. He succeeds Donald Stull, who has been transferred to the Chicago office for specialized sales duties. Young was formerly associated with the Photo Products Dept., E. I. du Pont de Nemours & Co., Inc.

RCA Moves Graphic Products Dept.– The Graphic Products Dept., Radio Corp. of America has been moved to new facilities near Burlington, N. J. The building will be used for manufacturing products designed to be used with RCA's Electrofax process.

Fairchild Elevates Dr. Levine – Dr. Samuel W. Levine has been appointed to the newly created position of technical assistant to the president's office of Fairchild Camera and Instrument Corp. He will be responsible for the review and evaluation of current research programs and coordination of technical development programs which are sponsored jointly by two or more divisions of the corporation. Levine joined Fairchild in 1953 and was appointed director of research for the Graphic Equipment Corp. in 1954. Immediately prior to his new appointment, he served as director of engineering and research for the Defense Products Div.

Thermogrip Staff Expanded – Two sales representatives and four sales technicians have been appointed to the staff of the Thermogrip line of hot melt adhesives and applying equipment by United Shoe Machinery Corp. New sales representatives are George D. Rice, who will cover downstate New York from the New York City office, and Arthur D. Sedgwick, who will cover Illinois and Iowa from the Chicago office. Sales technicians are; Robert E. Dunlap, Cleveland; Donald R.

To provide the best in photoengraving chemicals, Imperial has spent many man hours and thousands of dollars in research. These chemicals, bearing the proud Vita family name, are the finest available. Ask your Imperial representative for:



VITASOLV
First and still the finest of additives for Zinc Powderless Etching.

VITACOAT
Plastic base enamel top provides constant exposure and development time.

VITASCUMOUT
One step descumming process for Zinc Powderless Etching.

VITACOLD
Cold top enamel with fine etching qualities for day-in, day-out use.

Imperial

GRAPHIC PRODUCTS DIVISION

IMPERIAL TYPE METAL COMPANY

CHICAGO 50 • NEW YORK 7 • PHILADELPHIA 34

or More Information Circle 101 on Reader Service Card

For More Information Circle 117 on Reader Service Card →

LAWSON DOES IT AGAIN!!

Next month LAWSON launches a completely new kind of paper cutter...truly "American" in precision design and heavy duty construction...fully backed by Miehle-Goss-Dexter, Inc., world's largest manufacturer of graphic arts machinery...and priced to meet all competition.

■ In little more than a decade LAWSON's list of firsts includes successful hydraulic clamping, true two-end pull, electronic spacing, practical table slot closing, adjustable flexible clamping, high speed knife action, and hairline Autoset tape spacing.

■ Next month LAWSON takes another giant step to again outdistance all other cutter makes...at low prices you'll find hard to resist. Look for full details on the...

SEE IT IN YOUR AREA SOON • CHECK YOUR LAWSON REPRESENTATIVE FOR THE DATE

Mercer, Nashville, Tenn.; Paul E. Brown, Chicago, and Einar A. Lindblad, New York.

Typography Firm Established – Type Masters, Inc., a typography firm specializing in composition for publications, has been established in Hempstead, N. Y., by Robert Steinberg. Formerly owner of Robert's Linotype Service, Brooklyn, N. Y., Steinberg is a veteran of 40 years in typography.

Sheridan Expands Plant – The manufacturing capacity of Sheridan Iron Works, Sub. of T. W. & C. B. Sheridan Co., is to be expanded. The plans call for erection of two additions to the present factory in Champlain, N. Y., to provide an additional space of 13,800 sq. ft. Products manufactured at the plant include Perfect binders, covering machines and various cutting and creasing presses.

Allied Paper Acquires Gavrin Press– Acquisition of Arthur J. Gavrin Press, Inc., business forms manufacturers of New Rochelle, N. Y., has been announced by Allied Paper Corp. Arthur J. Gavrin, president, and David Gavrin, executive vice president, of the acquired firm, will continue to operate it as an autonomous division of Allied.

Kenro "Vertical 24" Camera
Model V240 with Vacuum Back

You are looking at a 24″ camera just 48″ high

In more ways than one, the Kenro "Vertical 24" puts a new dimension into the part a camera can play in your production methods. With the vacuum back it produces line or halftone negatives up to four 8½ x 11's or a full newspaper page. With the prismatic head, one of the many interchangeable backs, it produces directly, without negatives, repro quality enlarged or reduced line shots, tints and screened velox prints in positive or reverse form for paste-up or proofing.

It's a giant for work, versatile in application and precise in construction. Goerz lens, G.E. Quartzline lamps and ColorTran converter are standard equipment. Isn't it time you asked your dealer to demonstrate how a Kenro can save you time and money? Write for complete literature.

KENRO GRAPHICS, INC.

Dept. G, Cedar Knolls, New Jersey

For More Information Circle 109 on Reader Service Card

Chandler & Price Executive Dies – John W. Kirkpatrick, director, vice president and secretary of Chandler and Price Co., died July 13, while enroute to Cleveland from his summer home in Howdenville, Ont., Can. Mr. Kirkpatrick was widely known in the Graphic Arts industry and served as a director of the National Printing Equipment Assn. He was 72 at the time of his death and had been associated with Chandler and Price since 1910.

G-E Elects Officers – The election of Gerald L. Phillippe as president and Cramer W. LaPierre as executive vice president by the board of directors has been announced by General Electric Co. According to Ralph J. Cordiner, board chairman, Phillippe had been comptroller and principal financial officer of the company since 1953. LaPierre was vice president and group executive in charge of the company's electronic and flight systems group.

Represents Frye in New York–Richard Ryan has been named New York metropolitan area representative of Frye Manufacturing Co.

Goss West Coast Representative – C. W. (Neil) Burger has been transferred from the East Coast to the West Coast as a sales representative for Goss Company, Div. of Miehle-Goss-Dexter, Inc. He is assigned to headquarters in San Francisco and will serve as assistant to Wallace Granger, manager of Western sales.

BURGER

MORRISON

To Represent Photon–Vincent B. Morrison, Jr., has joined Photon, Inc., as an applications engineer and sales representative. A practical printer with 16 years of composing room production experience, Morrison was formerly associated with Intertype Company.

Doris Hall Named Executive Secretary –Joseph Cangalosi, president, Printing Industry of Washington, D. C., has announced that Doris T. Hall has been appointed executive secretary of the association. Mrs. Hall joined the asso-

Results: Incredible!

Alemite Oil Mist System Gives New Lease On Life To 35-Year-Old 8-Unit Press!

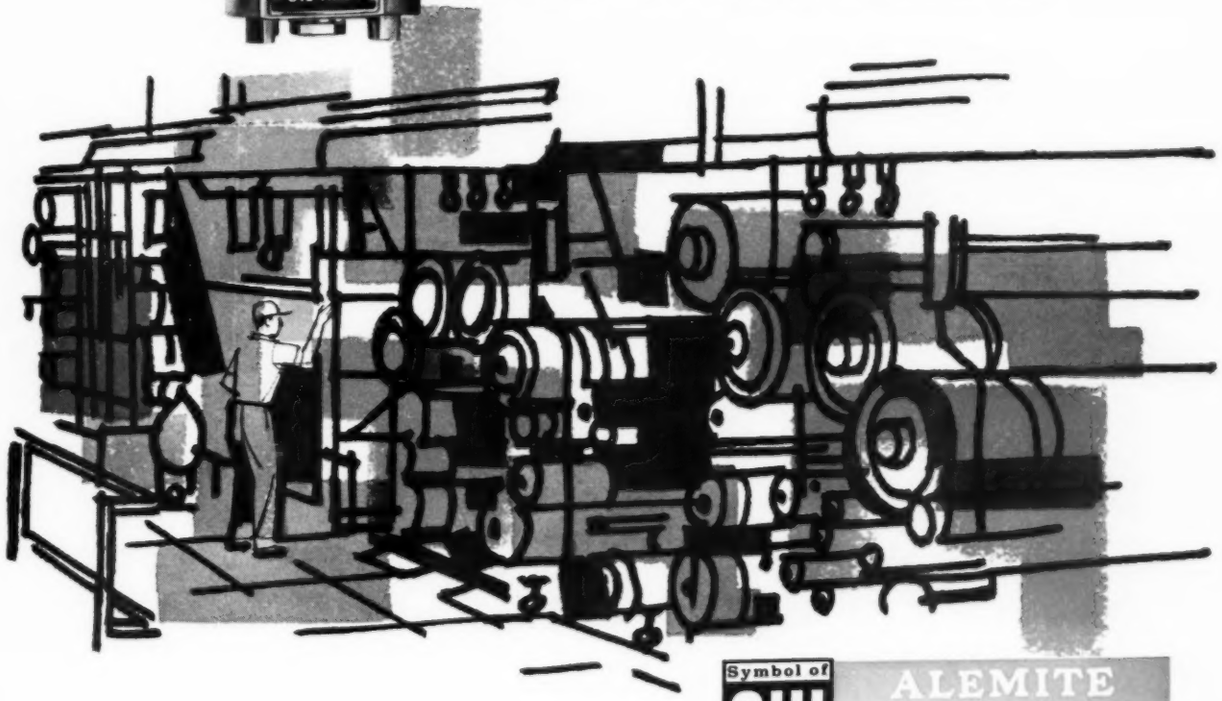
The Rockford (Ill.) Morning Star and Register-Republic has a real page one story – astounding results from an Alemite Oil Mist Lubrication System on eight 35-year-old rotary press units with 2 color decks and 2 folders.

Prior to the installation, two pressmen had to fill 473 oil cups twice a day. Now, as soon as the presses start to roll, Oil Mist begins its continuous, cooling lubrication.

Press blankets last longer since they're no longer being saturated with oil . . . Smoother operation saves electrical service . . . Good housekeeping has reduced the accident rate . . . Even a savings in the cost of hand towels, from over 2,000 to merely 500 per week . . . All directly attributed to the installation of the Alemite Oil Mist Centralized Lubrication System.

Call your nearest Alemite Distributor and ask about giving your presses a new lease on life. Or write for free Catalog No. 37-34 giving all the details.

Bearing Life Increased 1,800% . . . Lubricates 1,200 Points Better – Automatically . . . Eliminates Messy, Dangerous Drip Pans



In Canada: Stewart-Warner Corporation of Canada, Ltd. Belleville, Ontario

Symbol of SW Excellence

ALEMITE DIVISION STEWART-WARNER CORPORATION

Dept. X-91, 1850 W. Diversey Parkway, Chicago 14, Ill.

For More Information Circle 192 on Reader Service Card

ciation in 1951 as assistant executive secretary and was appointed acting secretary in March of 1961. She previously served as assistant director of industrial relations of the Union Employers Section, PIA.

Represents Linotype in New England—Robert J. Gillis has been appointed production engineer for Mergenthaler Linotype Co. He will cover the states of Maine, Vermont, New Hampshire and parts of Massachusetts. Previously, he was associated with the Providence (R.I.) *Journal* and R. R. Donnelley & Sons.

Hurletron Acquires Company – Purchase of Electro-Mechanical Specialties, Inc., has been approved by directors of Hurletron, Incorporated. The newly acquired company is a producer of miniature and sub-miniature relays, stepping switches and other electromechanical devices.

Chemco Technical Sales Manager Dies—Andrew J. Paulson, technical sales manager, Chemco Photoproducts Co., Inc., died on Aug. 1 at his home in Astoria, N. Y. Mr. Paulson was well-known in the photoengraving field and had been with Chemco since 1930.

SAVE GET

MONEY ON
materials
time
labor

100% accurate counting
up to 1,500 per min.
complete tabbing freedom

with
VACUUMATIC COUNTERS

for fast, 100% accurate counting of:

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Looseleaf
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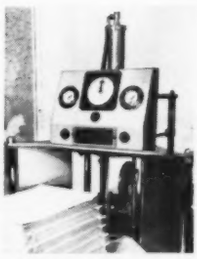
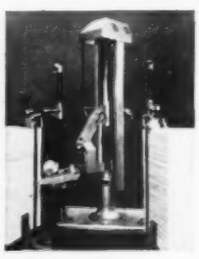
Sheet paper stock
Stamps
Writing pads



VACUUMATIC MARK II

Counts sheet sizes from 2" x 3" to 36" x 40" in stacks to 12" high at the rate of 1,500 per minute.



VACUUMATIC MARK V(B)

Designed for large production counting. Swinging head feature allows for immediate counting of second 4 ft. high stack after first is counted. Counts up to 450,000 sheets in 8 hr. shift. Handles the smallest to largest sizes of paper.

Other Vacuumatic counter models are available for more specific jobs. These also have standard mechanisms for tabbing at 100, 250 or 500 intervals. An electronic accessory provides for tabbing at any count desired from 6 to 999. Prices range from $3,000 to $8,650 depending on model.

CROSFIELD ELECTRONICS INC.
47 NEW YORK AVE.
WESTBURY, N. Y.
EDgewood 4-1940

For More Information Circle 44 on Reader Service Card

Linotype Appoints Two in West—Joseph Virzi has been assigned to a Southern California territory by Mergenthaler Linotype Co. A veteran Linotype production engineer, Virzi had many years of practical experience as a Linotype operator before joining the company. Also appointed by the company is Murray B. Frix who will cover the territory of Montana, Utah, Eastern Idaho and part of Wyoming. Previously, he was mechanical superintendent of the Casper (Wyo.) *Tribune-Herald* and *Morning Star*.

Huber Names St. Louis Manager—E. Richard Prager has been named manager of the St. Louis branch of the Ink Division, J. M. Huber Corp. Another appointment by the company is E. Guy Myover as Southwestern national accounts manager. Myover was formerly sales manager for the company in the Southern area.

PRAGER

ROBBINS

Robbins Transferred by Goss—L. Jack Robbins has been transferred to the Southwest territory by Goss Company, Div. of Miehle-Goss-Dexter, Inc. He was formerly a representative in the West Coast area. Assigned to headquarters in Dallas, Robbins will serve as assistant to Ed Yagow, manager Southwest sales, who has announced plans to retire in 1963.

Stern Joins Hempstead Press – Bert Stern has been appointed assistant to the general manager of Hempstead Press, Hempstead, N. Y. He was formerly associated with Pictorial Offset, New York City.

President of Technical Institute—Edwin H. Miner has been elected president of Voorhees Technical Institute, New York City (formerly the N. Y. Trade School), following the retirement of George E. McLaughlin.

To Handle Gifford-Wood Sales—Hensel and Associates has been appointed general sales agent for the materials handling equipment division of Gifford-Wood Co. The agency will serve customers in the Southern Ohio and

continued on page 20

For More Information Circle 83 on Reader Service Card

The white that's right for your color jobs

This paper's brilliant whiteness, behind a sharp, clear illustration, makes your printing look good enough to eat, compelling enough to open a customer's eyes and pocketbook. You can print both sides of Hammermill Opaque—perhaps on a lighter weight than you've been using—and save money on postage and the paper itself.

Photo Courtesy—General Mills, Inc., Betty Crocker Cake Mix

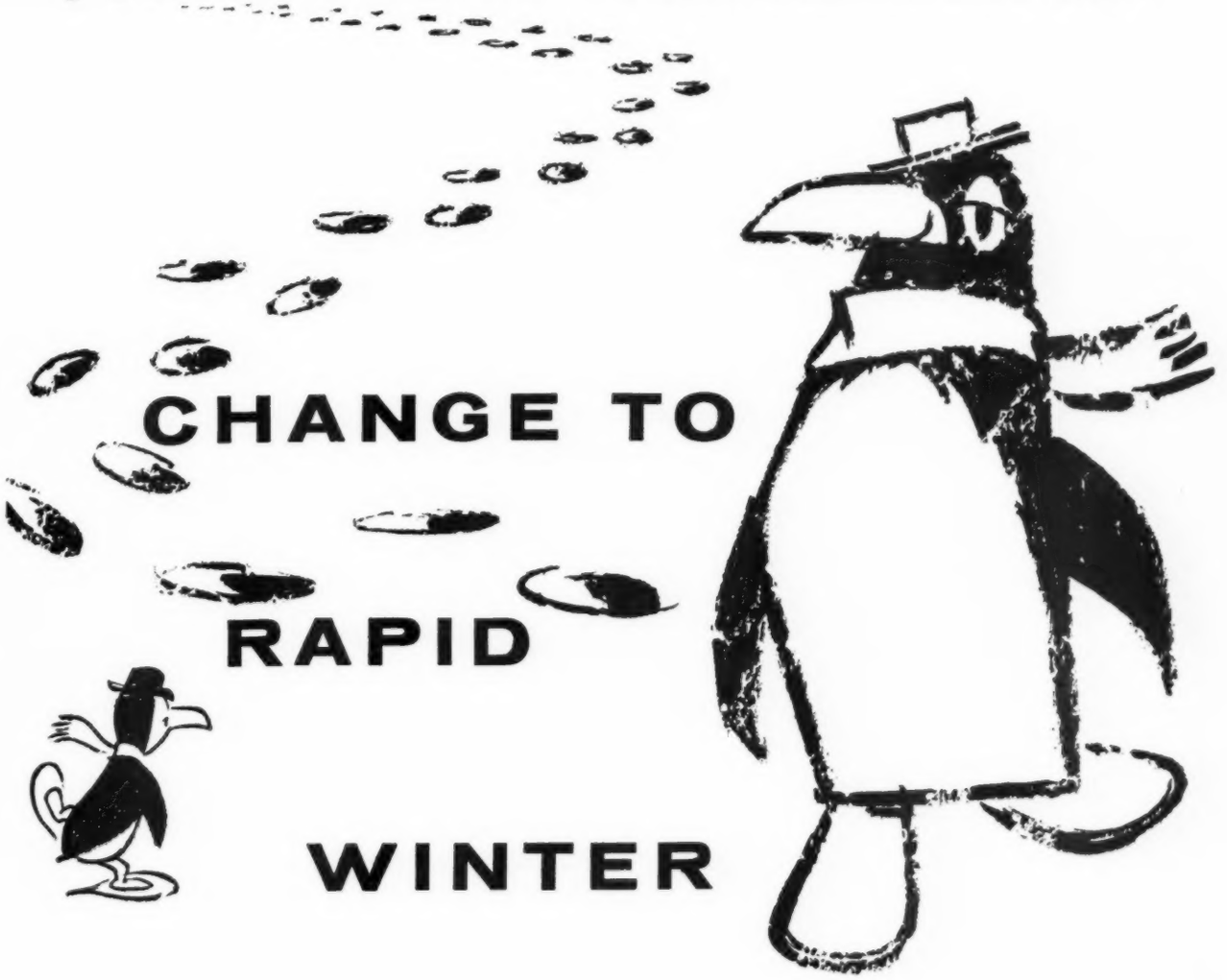
COLOR OR B&W

Photo Courtesy—Philco Corporation

DESSERTS OR APPLIANCES

Hammermill Opaque helps you keep whites white, colors bright. Notice, too, on this sheet the lack of objectionable show-through. Hammermill Opaque comes in three easy-to-print finishes: Pearl, English and Vellum. This insert was printed by offset on substance 70, Pearl finish on a 36 x 48 two-color press. Sheet size 29½ x 39. Speed 4,200 per hour. Deep etch plates. Hammermill Paper Company, 1552 East Lake Road, Erie 6, Pa.

TIME FOR SEASONAL



CHANGE TO RAPID WINTER

COMPOSITION ROLLERS

Thoroughly seasoned Job Press rollers carried in stock for all standard makes of Job Presses —on an exchange basis.

RAPID ROLLER COMPANY

MAIN OFFICE AND FACTORY: FEDERAL AT 26TH STREET • CHICAGO 16, ILLINOIS
EASTERN SALES OFFICE AND WAREHOUSE: 218-224 ELIZABETH AVENUE • NEWARK 8, N. J.

For More Information Circle 170 on Reader Service Card

News Items

(CONTINUED FROM PAGE 16)

Northeastern Kentucky areas. Located at 313 Mariemont Bldg. in Cincinnati, the agency office is managed by James A. Gailey.

St. Louis Company Elects Officers – The following officers were elected recently by Blackwell Wielandy Co.: Clyde K. Murphy, board chairman; Russell C. Hadden, president; Vance E. Ross, vice president in charge of equipment division; Edward C. Gossel, vice president in charge of Graphic Arts division; William H. Ebling, treasurer, and Francis H. Wielandy, secretary.

Hawaiian Distributor for Hunt–Movie Supply of Hawaii, Ltd., Honolulu, has been appointed distributor of photographic and Graphic Arts chemicals in Hawaii by Philip A. Hunt Co.

New York Litho Firm Sold – Trautmann, Bailey and Blampey, New York lithographic firm, has been purchased by Arcus-Simplex-Brown, Inc., also of New York. Both companies are located in the same building at 13 Laight St. James S. Arcus, Jr., has been named president of the purchased firm, which will be operated as a separate entity under its familiar name.

Elected President of Lockwood Greene –J. Robert Potter was elected president and treasurer of Lockwood Greene Engineers, Inc., at the annual meeting of the firm. William J. Heiser, president and treasurer since 1954, moved to chairman of the board.

Appointments at Watts Business Forms –Bernard Barish, sales service manager of Watts Business Forms Div. of Alfred Allen Watts Co., has been appointed district sales manager for New York City and Long Island. Paul Breslow also has been named sales service manager for the firm's headquarters plant in Clifton, N.J.

Ideal Roller Branches Moved – The branch offices of Ideal Roller & Mfg. Co. in Baltimore and Cleveland have been moved to new locations. Address of the Baltimore branch, where Joseph Ferrigno is manager, is 414 Water St., and of the Cleveland branch, managed by Richard L. Dawley, 21139 Lorain Road.

Heads Royal Zenith Sales–Martin A. Ross has been appointed general sales manager of Royal Zenith Corp. According to the company Ross has had over 20 years of experience in the Graphic Arts.

ROSS

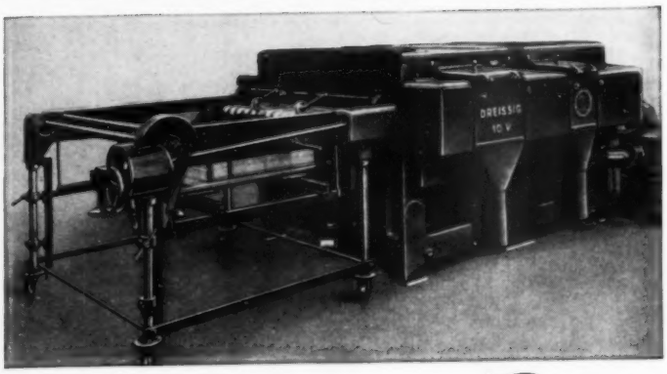
GANTZ

A. B. Dick Names Offset Sales Manager – Richard E. Gantz has been appointed sales manager-offset by A. B. Dick Co. Associated with the company since 1950, Gantz most recently served Dick as regional manager in Pittsburgh.

Two Ink Producers Integrated–Operations of Ander Chemical Corp. have been integrated with those of Fred'k H. Levey Co., according to F. G. Law, president of Levey. Ander Chemical was recently acquired by Columbian Carbon Co., and Levey is the printing ink division of Columbian.

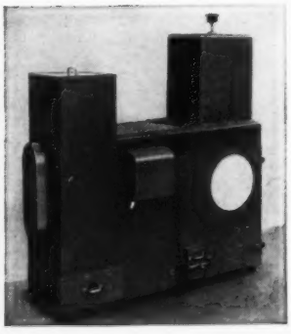
DREISSIG Bronzing Machines

THE KOMBI 10V



This high speed bronzing and dusting machine is designed for use in Tandem with either offset or letterpress equipment. Also available for roll to roll operation. Maximum sheet size 55" x 80".

- Section One is a bronze applicator which includes six burnishers and four dusting bands.
- Section Two consists of four additional burnishers, six dusting bands and two sets of upper and lower dusting-off rollers.



DREISSIG BR is a new concept in bronze cleaners and sifters. It not only eliminates vibration, and therefore the need for lubrication, but also produces the cleanest, loosest bronze powder possible.

Additional models of DREISSIG BRONZERS are available

HENRY P. KORN

ASSOCIATED, INC.

5 Beekman St, New York 38, N. Y.

Telephone: REctor 2-5808

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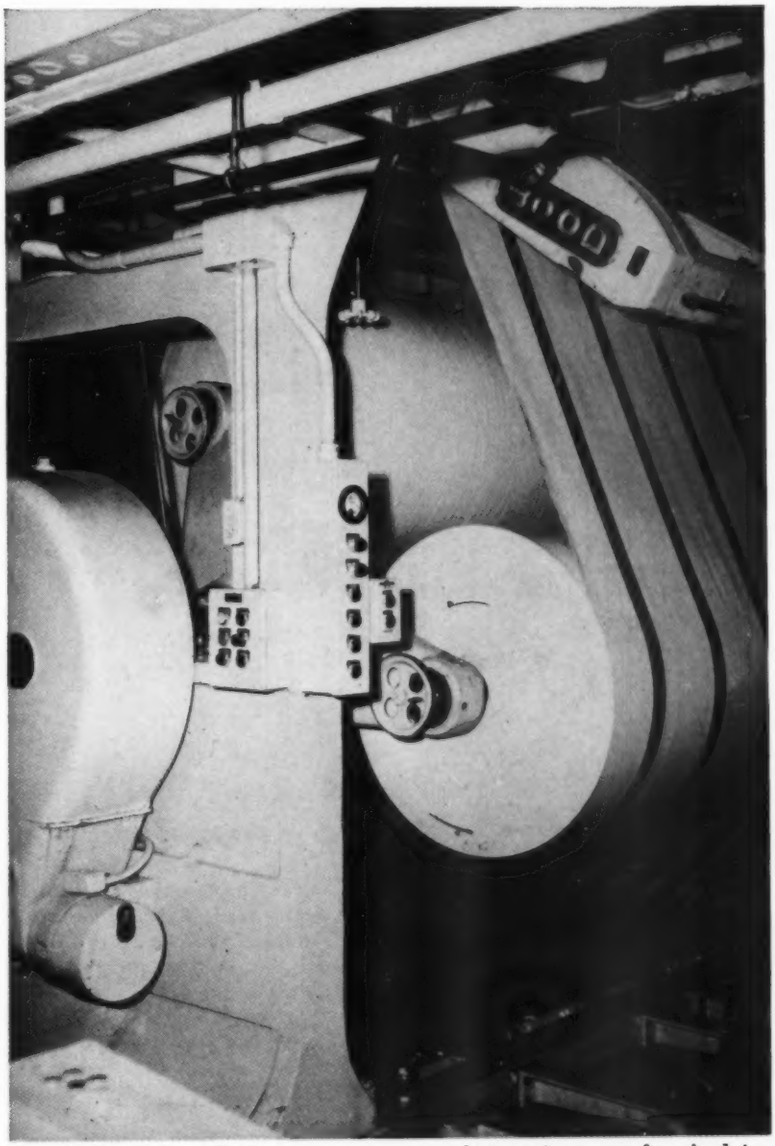
Built by WOOD for McCall's Magazine

designed to increase the efficiency of roll-fed presses



If you operate Roll-Fed Presses, WOOD Reels, Tensions and Autopasters will definitely increase their efficiency.

These equipments excel in the handling of oversize mill rolls . . . either newsprint or coated stock . . . so that high-speed presses can be kept in non-stop operation at appreciable savings in operating time and resultant increases in production.

We invite inquiries on Reels, Tensions and Autopasters, designed to solve *your* specific paper handling problems.

Automatic, 3-Arm Reels, designed to handle paper rolls up to 150" in width.

Autopasters, synchronized to make flying pastes at running speed of press.

Pneumatically controlled stationary strap tensions for newsprint. Running belt tensions for coated stock.

IF IT'S Wood IT'S GOOD

Send for illustrated literature

WOOD NEWSPAPER MACHINERY CORPORATION

PLAINFIELD, NEW JERSEY • Executive & Sales Office: 501 Fifth Avenue, N. Y. 17.

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MEETINGS for the PRINTING INDUSTRY

American Photoengravers Assn.—1961 Conv., Pittsburgh Hilton Hotel, Pittsburgh, Oct. 23-25. Exec. Secy. Frank J. Schreiber, 166 W. Van Buren St., Chicago 4.

ANPA-RI Production Management Conf.—1962 Conf., Sheraton Hotel, Philadelphia, June 11-14. Mgr. William D. Rinehart, ANPA-RI Mechanical and Service Div., 750 Third Ave., New York 17.

Book Manufacturers' Institute — 1961 Annual Meeting, Boca Raton Hotel, Boca Raton, Fla., Oct. 17-20. Secy. Miss A. G. Watson, 25 W. 43rd St., New York 36.

Fifth District Craftsmen's Conf.—1962 Conf., Claypool Hotel, Indianapolis, May 11-12. Pres. Elim H. Smith, Gospel Trumpet Co., Anderson, Ind.

Flexographic Technical Assn. — 1962 Meeting, Pick-Congress Hotel, Chicago, May 7-8. Exec. Secy. Julian Ross, 220 W. 42nd St., New York 36.

Graphic Arts Assn. Executives—1961 Fall Meeting, Hilton Hotel, Pittsburgh, Oct. 6-7. Secy-Treas. Doris Hall, 321 Tower Bldg., Washington 5, D. C.

Gravure Technical Assn.—1962 Conv., Hotel Commodore, New York, Feb. 26-Mar. 1. Exec. Secy. Edward S. St. John, Room 4800, 30 Rockefeller Plaza, New York 20.

Great Lakes Newspaper Mechanical Conf.—1962 Conf., Claypool Hotel. Indianapolis, Jan. 14-16. Secy. John E. Innis, R. R. No. 1, Box 546, Indianapolis 27, Ind.

Illinois Newspaper Mechanical Conf.—1961 Conf., Sheraton Towers, Chicago, Sept. 23-24. Secy.-Treas. Arthur Kramer, Joliet (Ill.) *Herald-News*.

Intl. Assn. of Electrotypers & Stereotypers, Inc.—1961 Conv., Shoreham Hotel, Washington, D.C., Oct. 2-5. Exec. Secy. Floyd C. Larson, 758 Leader Bldg., Cleveland 14.

Intl. Assn. of Printing House Craftsmen—1962 Conv., Pittsburgh Hilton Hotel, Pittsburgh, Aug. 12-15. Exec. Secy. Pearl E. Oldt, 411 Oak St., Cincinnati 19, Ohio.

Intl. Graphics Arts Education Assn.—1962 Conf., Western Washington College of Education, Bellingham, Wash., July 29-Aug. 3. Exec. Secy. Samuel M. Burt, 1411 K St., N.W., Washington 5, D. C.

Intl. Printers Supply Salesmen's Guild—1962 Conv., Pittsburgh Hilton Hotel, Pittsburgh, Aug. 12-15. Secy. Harrie Lewis, 853 Broadway, New York 3.

Intl. Typographic Composition Assn.—1961 Conv., The Queen Elizabeth, Montreal, Can., Oct. 4-7. Exec. Secy. McKinley M. Luther, Washington Bldg., 15th St. and New York Ave., N.W., Washington 5, D. C.

Lithographers and Printers National Assn. — 1962 Conv., Homestead, Hot Springs, Va., Mar. 31-Apr. 6. Dir. Oscar Whitehouse, 1025 Connecticut Ave., N.W., Washington 6, D. C.

Lithographic Technical Foundation — 1962 Annual Members Meeting, Sheraton-Blackstone Hotel, Chicago, Mar. 20. Exec. Dir. William H. Webber, 131 E. 39th St., New York 16.

Mid-America Newspaper Mechanical Conf.—1961 Conf., Hotel Muehlebach, Kansas City, Mo., Sept. 8-10. Secy. Cliff Waters, Kansas City (Mo.) *Star*.

...A dot's a dot and a line's a line when proofed on apco **REPRO-PROOFING PAPER**

Nothing is left to chance with APCO scientifically formulated REPRO/Proofing paper. Its dull white finish, free from dirt specks, produces faithful reproduction of type matter, line drawings and halftone dots. Its level, smooth surface remains flat during proofing for sharp, black solids and hairline thins . . . and, it quickly absorbs ink for smudgeless drying.

Non-peeling surface, fuzz-free friskets with apco **MASKING PAPER**

MANDARIN — Both sides color coated for complete protection to fastest films and plates during long exposure to light. ORTHO-RED — for orthochromatic films with fast emulsions. Both, amply transparent for accurate negative alignment, readily release masking tape, won't tear or peel when frisketing.

Write for new "tell-all" sample kit — on your business letterhead, please.

apco

... Product research developments for the Graphic Arts Industries

THE APPLETON COATED PAPER CO.
APPLETON • WISCONSIN

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For More Information Circle 102 on Reader Service Card →

LETTERPRESS INKS

Speed King's 18 easy-to-mix colors and black are all you need for fast, high quality letterpress color work. Packed in 1- and 5-lb. cans, ready to run on any job in the shop. Ask your IPI man for a Speed King LP color card . . . it tells the whole story.

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CORPORATION DIVISION

EXECUTIVE OFFICES: 67 WEST 44th STREET, NEW YORK 36, N. Y.

Mid-Atlantic Newspaper Mechanical Conf.—1962 Conf., Hotel Shelburne, Atlantic City, N. J., Mar. 29-31. Gen. Mgr. G. Richard Dew, 2717 N. Front St., Harrisburg, Pa.

National Assn. of Litho Clubs – 1962 Conv., Deauville Hotel, Miami Beach, May 31-June 2. Mgr. Robert Mayer, 330 S. Wells St., Chicago 6.

National Assn. of Photo-Lithographers —1961 Conv., Hotel Commodore, New York, Sept. 27-30. Exec. Vice Pres. William J. Stevens, Herald Tribune Bldg., 230 W. 41st St., New York 36.

National Paper Trade Assn. – 1961 Conf., Conrad Hilton Hotel, Chicago, Oct. 22-25. Exec. Secy. O. Glenn Leach, 220 E. 42nd St., New York 17.

National Printing Equipment Assn., Inc.—1961 Meeting, Pittsburgh Hilton Hotel, Pittsburgh, Oct. 10-11. Exec. Secy. William G. O'Donnell, Room 914, 509 Madison Ave., New York 22.

National Safety Council Printing and Publishing Section—1961 Safety Congress, Conrad Hilton Hotel, Chicago, Oct. 17. Staff Rep. E. E. Koch, National Safety Council, 425 N. Michigan Ave., Chicago 11.

New England Daily Newspaper Composing Room Executives Assn. – 1962 Conf., Hartford, Conn., May (Hotel and exact date to be announced). Exec. Secy. Lewis R. Greene, Westerly (R.I.) *Sun*.

New England Newspaper Mechanical Conf.—1961 Conf., Hotel Statler Hilton, Boston, Oct. 14-15. Secy.-Treas. Walter C. Crighton, New London (Conn.) *Day*.

Northwest Newspaper Mechanical Conf.—Secy. Treas. Ralph N. Carson, Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3, Minn.

Pacific Newspaper Mechanical Conf.— 1961 Conf., Jack Tar Hotel, San Francisco, Sept. 8-10. Secy. Edward J. Maggi, Phillips & Van Orden Co., Fourth & Berry Sts., San Francisco.

Packaging Institute Assn.—1961 Meeting, Biltmore Hotel, New York, Oct. 18-22. Exec. Dir. Chas. A. Feld, 342 Madison Ave., New York 17.

Printing Industry of America – 1961 Conv., Statler Hilton Hotel, Pittsburgh, Oct. 9-14. Gen. Mgr. Bernard Tavmans, 5728 Connecticut Ave., N. W., Washington 15, D. C.

Research and Engineering Council – 1962 Conf., Hotel Park-Sheraton, Washington, D. C., June 4-6. Managing Dir. Robert E. Rossell, 1411 K St., N. W., Washington 5, D. C.

Rocky Mountain Newspaper Mech. Conf.—1961 Conf., Brown Palace Hotel, Denver, Oct. 27-29. Pres. Gil Bailey, Scottsbluff (Neb.) *Star-Herald*.

Screen Process Printing Assn., Intl. – 1962 Conv., Hotel Sherman, Chicago, Oct. 19-21. Exec. Secy. Robert H. Blundred, 549 W. Randolph St., Chicago 6.

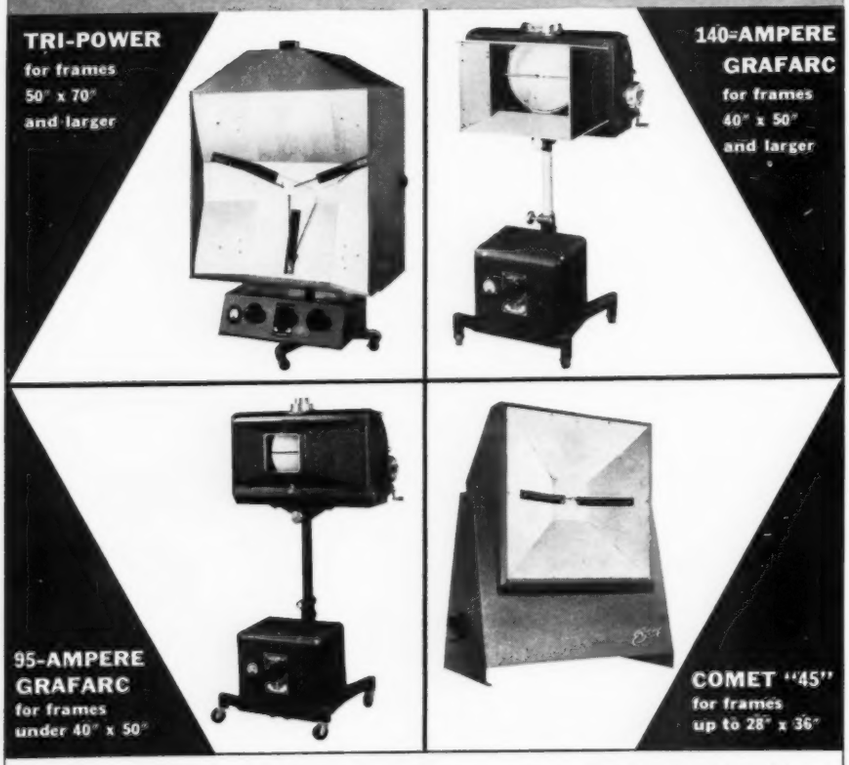
SNPA (Eastern Div.) Mechanical Conf. —1962 Conf., Francis Marion Hotel, Charleston, S.C., Aug. 5-7. Secy. James B. Brotbeck, P. O. Box 1569, Chattanooga 1, Tenn.

SNPA (Western Div.) Mechanical Conf. – 1962 Conf., Oklahoma City, Mar. 4-6. Secy. Claude V. Capers, P. O. Box 1569, Chattanooga 1, Tenn.

Southern Graphic Arts Assn. – 1962 Conf., Buena Vista Beach Hotel and Motel, Biloxi, Miss., May 6-9. Secy. Charles E. Kennedy, P. O. Box 1187, Nashville 2, Tenn.

Technical Assn. of the Graphic Arts– 1962 Conv., Hotel Radisson, Minneapolis, June 11-13. Exec. Secy. Earl Sundeen, P. O. Box 3064, Federal Station, Rochester 4, N. Y.

Strong FULLY AUTOMATIC ARC PRINTING LAMPS



Motor-driven arc maintains constant color temperature and light intensity with uniform coverage of entire work area.

Completely self-contained with their own power supply, contactor and timer. Simply plug into convenience outlet, and you're ready for fastest work. Automatic striker, feed and return.

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A SUBSIDIARY OF GENERAL PRECISION EQUIPMENT CORPORATION

For More Information Circle 190 on Reader Service Card

ANOTHER QUALITY MAT FOR NEWSPAPER REPRODUCTION

JUST DEVELOPED BY CERTIFIED

BE OUR GUEST! TRY THE WONDERFUL NEW CERTIFIED PINK COMAT

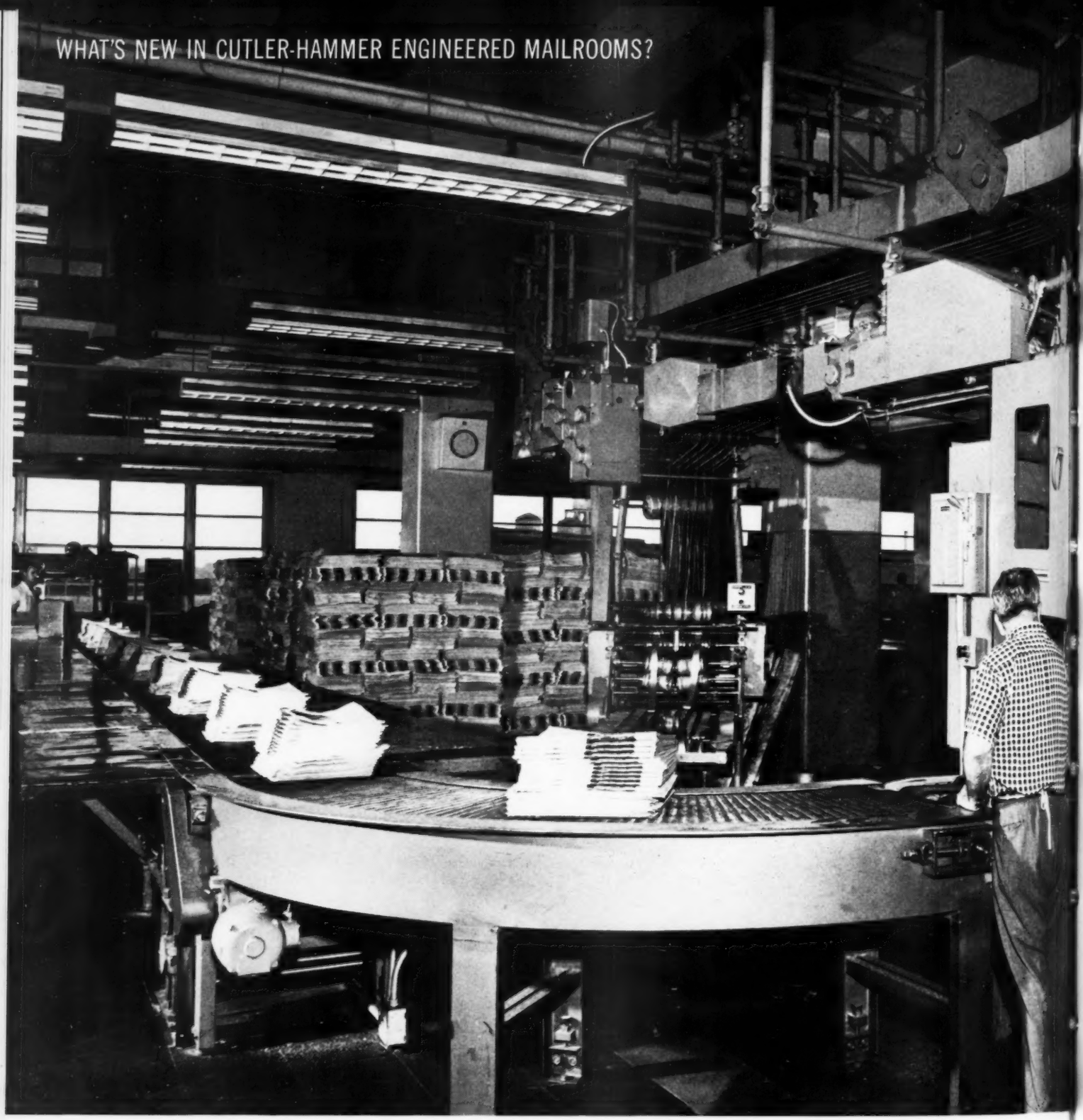
ORDER A CASE OR A COMPLIMENTARY PACKAGE OF SAMPLES. ONE OF OUR REPRESENTATIVES WILL CALL AND HELP YOU GET OPTIMUM RESULTS FROM THE COMATS. STEREOTYPERS WHO TRY THEM ARE ENTHUSIASTIC OVER THE RESULTS.

TELEPHONE: MURRAY HILL 2-6112

CERTIFIED DRY MAT CORPORATION
555 Fifth Avenue · New York 17, N.Y.

For More Information Circle 36 on Reader Service Card

WHAT'S NEW IN CUTLER-HAMMER ENGINEERED MAILROOMS?



This view of one of six duplicate lines in the Baltimore SUN Mailroom—a major automated system recently completed—shows stacker in foreground; at rear left, wire-tying machine is visible. An automatic bottom wrap machine and pusher are incorporated into the line.

C-H CONVEYOR ▸ C-H COUNTER STACKER ▸ AUTOMATIC WRAP APPLICATION ▸ TYING MACHINE FEEDER ▸ TYING MACHINE ▸ AUTOMATIC BUNDLE DISTRIBUTION SYSTEM ▸ AUTOMATIC LOADING DOCK SYSTEM

C-H COUNTER-TOTALIZER

CUTLER-HAMMER CAN PROVIDE ANY OR ALL OF THESE AUTOMATIC MAILROOM OPERATIONS

Now you can make your mailroom as automatic as you want

CUTLER-HAMMER has the mailroom systems engineering experience—and the apparatus—to make your mailroom operation as completely automatic as you want it.

In addition to the Baltimore SUN, Cutler-Hammer is now supplying complete major systems for leading metropolitan dailies including the Atlanta JOURNAL & CONSTITUTION, Baltimore NEWS POST, Miami HERALD and Milwaukee JOURNAL.

You can begin automating your mailroom with a Cutler-Hammer Counter Stacker (we've sold 103 to 30 leading newspapers to date). Or, let us design and install a complete press-to-loading dock system. Our newspaper specialists will go to work for you . . . submit a complete, detailed, *workable* proposal to fit your exact requirements.

Typical operations of a systems-engineered mailroom are charted below at left. Bear in mind you can begin with one or more of these automatic handling operations and add increasingly sophisticated phases to match your timetable. Cutler-Hammer can provide the years-ahead engineering and equipment for the most efficient mailroom operation and you get the benefit of the unit responsibility for the complete system.

GET THE DETAILS ON WHAT'S NEW FROM CUTLER-HAMMER

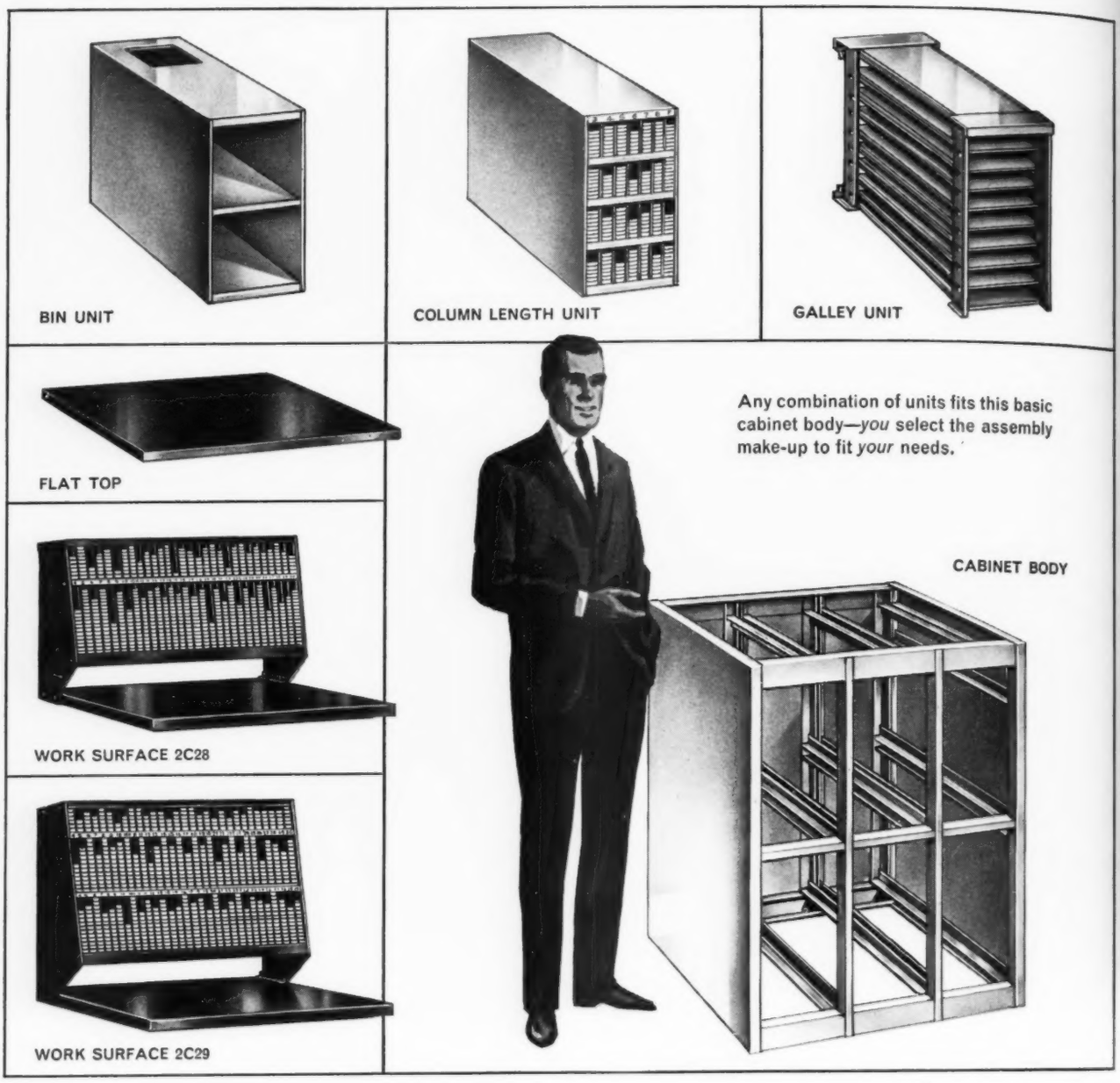
You're way ahead when you call the Cutler-Hammer newspaper equipment specialist in early in your mailroom planning and get the advantage of unequalled experience in mailroom design and equipment. There's a Cutler-Hammer office near you.

WHAT'S NEW? ASK . . .

CUTLER-HAMMER

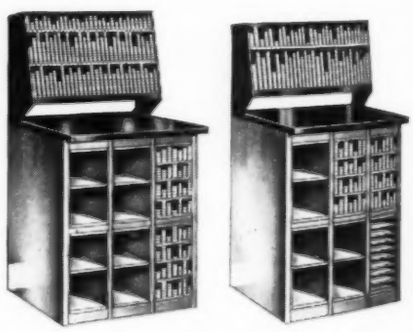
Cutler-Hammer Inc., Milwaukee, Wisconsin • Division: Airborne Instruments Laboratory • Subsidiary: Cutler-Hammer International, C. A. • Associates: Cutler-Hammer Canada, Ltd.; Cutler-Hammer Mexicana, S. A.

For More Information Circle 45 on Reader Service Card


BIN UNIT
COLUMN LENGTH UNIT
GALLEY UNIT
FLAT TOP
Any combination of units fits this basic cabinet body—*you* select the assembly make-up to fit *your* needs.
CABINET BODY
WORK SURFACE 2C28
WORK SURFACE 2C29

Space-saving ad frames – *to your own design*

These new Hamilton Space-Maker ad frames actually *take ⅓ less space* while providing greater storage capacity! They reduce crowding, step up production. Pick the units that fit your work, your composing room. Hamilton builds ad assembly cabinets to fit your particular needs . . . yet you pay no more for this custom assembly. *Write today* for Catalog AP-326 and free Custom Design Kit.



Unit No. 41C11 Unit No. 41C16

Hamilton

PROFESSIONAL AND SCIENTIFIC FURNITURE

Hamilton Manufacturing Company, Two Rivers, Wisconsin

New Dimensions in Time and Space Efficiency for: physicians; dentists; industrial, hospital, school laboratories; draftsmen; printers; libraries; home laundries.

For More Information Circle 82 on Reader Service Card

"Our Marathon Roll Film Camera more than doubled the production of our previous camera"

A. J. Paradiso, President, Lithographing Printing Mailing Corporation, New York

That's how A. J. Paradiso, president of New York's Lithographing Printing Mailing Corporation, opened his letter. He then gave us some details:

"Our gallery was working 2½ shifts to keep up with our presses. We were certain we would need a second camera and all the additional expense entailed. But by replacing our sheet-fed camera with the Marathon, we have more than kept pace with the pressroom, and on a one-shift basis.

"We can now fit in rush jobs without disturbing normal production. Peak loads are taken in stride without added costs or idle presses. In addition, we have also reduced our film costs 14% by utilizing roll film.

"All in all, I'd say the Chemco Marathon Roll Film Camera with its amazing Automatic Contact Screen Mechanism is one of the most profitable investments we have ever made."

We think this actual report from a typical customer will be of interest to anyone who wants increased profits and higher production in his gallery.

How fast will a roll film camera pay for itself in your shop? Get the facts from your Chemco representative.

chemco

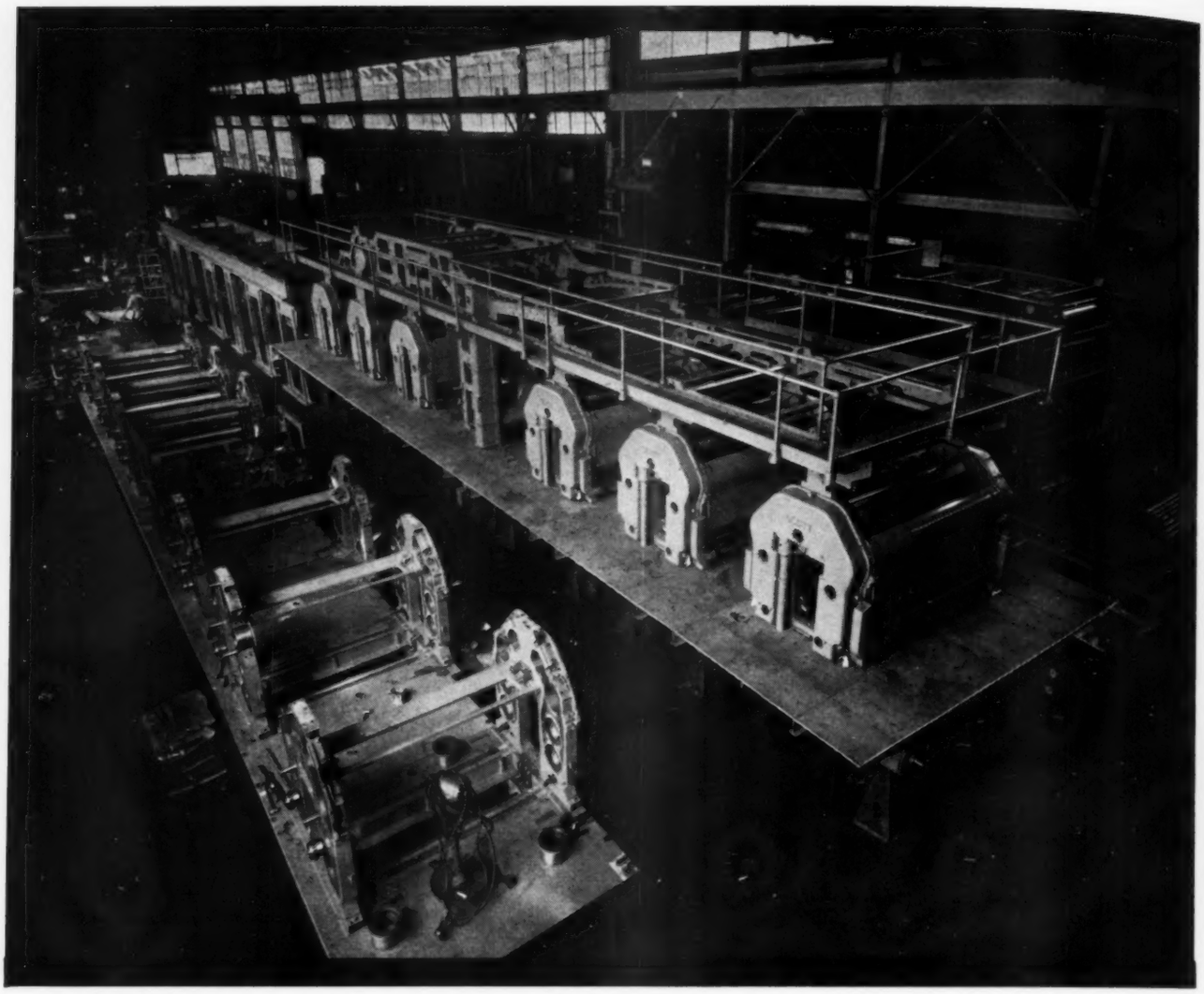
CHEMCO PHOTOPRODUCTS COMPANY, INC.

Main Office and Plant — Glen Cove, New York

ATLANTA BOSTON CHICAGO CLEVELAND DALLAS LOS ANGELES NEW ORLEANS NEW YORK

West Coast Distributors: California Ink Company, Inc.; Smart Supply Company, Inc. Exclusive Agents in Canada: W. E. Booth Company, Ltd.

For More Information Circle 39 on Reader Service Card



Left: 6 black & white units, 1 4-color unit, 2 color plate cylinders, double folder. For Worcester, Mass. *Telegram-Gazette.*

Center: 6 black & white units, single folder, color plate cylinder; substructure in background; designed & built for Paterson, N. J. *Evening News.*

Right: 2 black & white multi-units with color plate cylinder; additional Scott equipment for Jackson, Mich. *Citizen-Patriot.*

Three High-Speed Presses In SCOTT Erection Bay

Quality workmanship plus a modern plant, equipped to build newspaper presses designed to meet today's need for high-speed, economical production; complete with all facilities for spot and multi-color printing.

Let a SCOTT engineer help you solve any pressroom problem involving the printing of better-looking newspapers.

SCOTT presses **WALTER SCOTT & CO.**

DIVISION OF WOOD NEWSPAPER MACHINERY CORPORATION • PLANT PLAINFIELD, N. J. EXECUTIVE & SALES OFFICE: 501 FIFTH AVENUE, NEW YORK 17, NEW YORK

For More Information Circle 182 on Reader Service Card

LANSTON
ROLL FILM DISPENSER

Through the use of economical roll film instead of the more costly sheets, the versatile LANSTON Roll Film Dispenser will save you a *minimum of 10%* on film costs alone. In addition, with fewer sizes to stock; no boxes to open, close, and store; less time required to handle and cut film; and accidental spoilage all but eliminated, film processing with the LANSTON Roll Film Dispenser costs less every step of the way—from ordering to shooting.

Whatever types of films you use, the LANSTON Roll Film Dispenser can handle them. For films to 30 inches wide, the LANSTON Roll Film Dispenser will improve savings and convenience. For complete details on this immensely practical unit, return the coupon today.

This advertisement was composed on the Monotype in 20th Century, Century Schoolbook and Craw Clarendon.

Lanston

unitronics

Typesetting and Casting Machines • Film Dispenser • Light Integrators • Optical Depth Gauges
Contact Camera • Step and Repeat Machines • Overhead Cameras • Proofing Film • Plate Coaters
Developing and Darkroom Sinks • Vacuum Printing Frames • Layout and Stripping and Dot Etching Tables

Sales & Service Coast to Coast

LANSTON MONOTYPE CO., G Street below Erie Ave., Box 4768, Philadelphia 34, Pa.
Please send me complete information on the Lanston Roll Film Dispenser.

Name_____ Title_____

Company_____

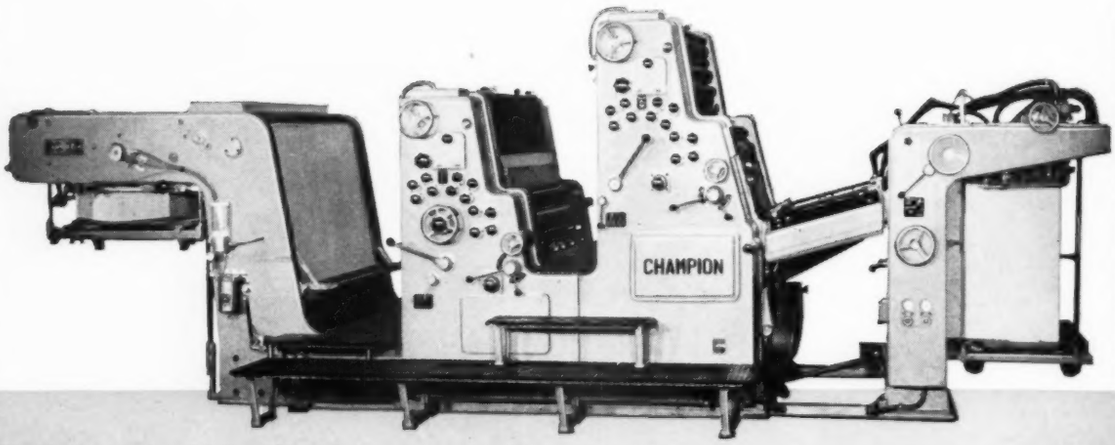
Address_____ 4455

For More Information Circle 116 on Reader Service Card

So easy to operate, work's almost a pleasure

CHAMPION!

- **controls are outside machine**
- **lubrication's continuous**
- **exceptionally quiet—even at 7200 sheets/hr.!**



Turning out fine offset work is tough enough without having to battle a balky press, too. That's why you should check the Champion. The more than 100 now in use have proved it's the two-color press built with you in mind . . . the press that lets you concentrate on the job at hand. Consider all you get:

EASY-TO-GET-AT CONTROLS . . . all located conveniently on the side of the Champion. You make all settings and adjustments quickly, simply, without ever having to work "inside." And you can control one or both units from this single station.

PRECISE REGISTRATION . . . you can reposition the "B" unit vertically or horizontally while the machine is running. Massive steel frame and precision-ground parts also help assure registration second to none.

SPECIALLY-DESIGNED TRANSFER SYSTEM . . . delivers first-quality impressions on long and short runs, thick or thin stocks.

CONTINUOUS LUBRICATION of both feed and machinery drive systems by means of a special recirculating oil system. Keeps downtime, maintenance costs at a minimum. This lubrication, plus precision gearing, makes for an exceptionally quiet-running press.

PRECISE ELECTRONIC FEED CONTROL . . . for example, only the Champion offers you an electronic eye that prevents feeding if sheets are late, early or crooked, and spotlights the trouble. Corrections? Fast and easy.

QUALITY PRINTING AT TOP SPEED . . . up to 7200 sheets/hr., on sheets as large as 26¾" x 38½" . . . with precise controls to insure proper inking at any speed on any stock.

MONEY-SAVING VERSATILITY . . . the Champion enables you to handle stocks of varying thicknesses – even board up to 30-point.

OTHER KEY FEATURES . . . stoppable at feed, "A" unit, "B" unit or delivery system. Oversize, 26" cylinder. Streamlined construction.

These are only a few of the Champion features that can make your job easier. For full details on this fine press, and on the prompt service HCM Corporation offers, write today.

CHAMPION by color metal

A world leader in the development of offset printing presses
Zurich, Switzerland

Distributed in the U.S. exclusively by:

80 Varick Street
New York 13, N. Y.

HCM CORPORATION

For More Information Circle 81 on Reader Service Card

A COMPLETE BINDERY IN A FEW SQUARE FEET

FASTEST MONEY-MAKER IN YOUR SHOP will be this Versatile 26x40 BAUMFOLDER!

That's why more BAUMFOLDERS are bought by Printers and Binderies than all other folding machines combined

There are proved **reasons** why over 76% of the companies in the Graphic Arts Industry, where efficient folding is essential, depend on BAUMFOLDERS. Folding is vital to almost every job, and for profit assurance this requires the most versatile and reliable folding machines. BAUMFOLDERS easily handle a wide range of stocks, afford a large, fast output, large sheet sizes and work hour after hour without interruption or special attention.

EASY TERMS AVAILABLE—Only 10% down or your old folding machine as a liberal down payment—balance payable in up to 40 monthly installments. Call Collect—LOcust 8-4470.

MAIL THE COUPON FOR MORE INFORMATION—Find out more about the wide variety of models and sizes of Baumfolders available by mailing the attached coupon.

BAUMFOLDER SALESMEN ARE SPECIALISTS Years of experience have made Baumfolder men more than qualified to solve folding problems.

BAUMFOLDER DIVISION
Bell & Howell Company
1540 Wood Street, Philadelphia 2, Pa.

The VERSATILE 26x40 BAUMFOLDER Up to 14 fold plates for all impositions

SHEET SIZE: Nominal 26x40; Maximum parallel 26x50; Minimum 4x6.

PLATE FORMATION: 9 fold plates standard equipment, with options up to 14 plates to handle all impositions. Baumfolders can be tailored to fit your precise application.

TYPES OF FEEDERS AVAILABLE: Suction pile; Suction continuous.

FEATURES: Precision steel rollers that enable you to fold stock usually considered too thin or too thick to fold. Complete facilities for scoring, perforating, slitting and/or trimming either flat or folded signatures. Pasters optional.

CONSTRUCTION: Angular roller cross-carriages for positive high-speed register on right angle folding. Newly designed cast-ribbed folding plates and hinged deflectors for rapid selection of impositions. Heavy frame for great rigidity, and complete retention of adjustments.

PP-961

BAUMFOLDER DIVISION
Bell & Howell Company
1540 Wood Street, Philadelphia 2, Pa.

I am interested in receiving more information on the BAUMFOLDER 26x40 (_____).
(indicate other sizes)

Please forward your Brochure.

Individual _____

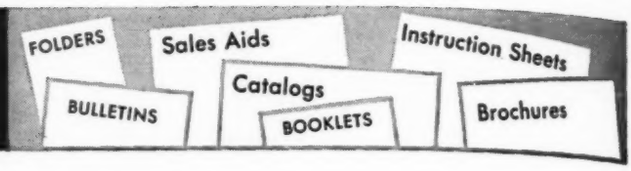
Firm _____

Address _____

City _____ Zone ___ State _____

For More Information Circle 13 on Reader Service Card

HELPFUL LITERATURE



Circle Numbers on Reader Service Card in This Issue

Keep Yourself Informed. The folders and bulletins listed below all pertain to modern equipment, supplies, processes and/or methods. These have been prepared especially for plant managers, superintendents and foremen. Please circle the numbers on the Reader Service Card in this issue for the bulletins you wish to receive. Drop the self-addressed card in the mail. PRINTING PRODUCTION will forward your request.

Composing Room

MEGATYPE PHOTOTYPESETTER

A description of the applications and characteristics of the Megatype Phototypesetter and composer has been made available in booklet form by Don McCray. The equipment is intended for composing newspaper display advertising. It combines in a single unit, an electric typewriter with a supplemental keyboard, dual memory storage systems, exposing mechanism and composing guide. The Megatype sets and arranges type in 43 sizes from 6 pt. to 144 pt. in justified lines according to layout. CIRCLE No. 313 ON READER SERVICE CARD.

CODED NEWSPAPER BASE

An information sheet describing Duralumin color coded newspaper base has been issued by Jack Moore. The base is color coded according to height and size. CIRCLE No. 318 ON READER SERVICE CARD.

PROCESSOR FOR FILMOTYPE

A processing unit for developing, fixing and washing copy from the Filmotype photolettering and typesetting machine is described in an information sheet issued by Filmotype Corporation. CIRCLE No. 311 ON READER SERVICE CARD.

STAR PARTS AUTOSETTER

An illustrated brochure describing the Autosetter flexible tape system for automatic control of linecasting machines has been published by Star Parts, Inc. All functions of the equipment are illustrated and technically described. CIRCLE No. 320 ON READER SERVICE CARD.

TYPE METALS EXPLAINED

An eight page brochure explaining the background and composition of type metals is offered by National Lead Co. Among the topics covered in the publication are behavior of the alloy metals, mottling, cracking, effect of impurities, use of flux and the composition of alloys for various purposes. CIRCLE No. 327 ON READER CARD.

LUDLOW MATRICES

Literature describing Ludlow and rubber stamp matrices available from Service Engravers, New York, has been issued. Included is reverse type for casting on the Ludlow, a vertical adaptor for the Ludlow, oversized advertising figures and deep engraved rubber stamp matrices. CIRCLE No. 316 ON READER SERVICE CARD.

Platemaking

DIRECT IMAGE PLATES

The second in a series of technical bulletins entitled *Offset Printing with Direct Image Plates* has been published by Polychrome Corporation. Detailed information is provided on preparing direct image plates by typewriter. Pre-printing and imaging with pen, pencil, special drawing ink and transparent carbon are also discussed. CIRCLE No. 326 ON READER CARD.

STEREO CASTING EQUIPMENT

A folder describing the company's line of stereo casting equipment has been issued by Hammond Machinery Builders, Inc. Included are the Easy Kaster 6, the Scorcher and the Easy Caster 8. CIRCLE No. 310 ON READER SERVICE CARD.

LIGHTING TIP SHEET

A technical data sheet listing tips on lighting procedures has been made available by Natural Lighting Corp. The sheet was prepared with the cooperation of the Lithographic Technical Foundation. Information is given on exposures with the ColorTran lighting system. Recommendations are made on lighting procedures for making screened halftones using glass screens or gray and magenta contact screens. CIRCLE No. 321 ON READER SERVICE CARD.

STA-HI COLORMOUNT

An illustrated information sheet on the Colormount system for accurately mounting original color plates has been prepared by Sta-Hi Corp. Described on the sheet are all operations of the Colormount system. Equipment necessary for the system is illustrated and labeled. CIRCLE No. 339 ON READER SERVICE CARD.

Pressroom

FLUORESCENT INK SWATCHES

Swatches of fluorescent inks, made with Sun-Tested Velva-Glo Type P-1500, are available from Radiant Color Co. The inks are said to print on stocks ranging from newsprint and boxboard to coated paper. Nine colors are available. CIRCLE No. 308 ON READER SERVICE CARD.

MERGENTHALER LETTERPRESSES

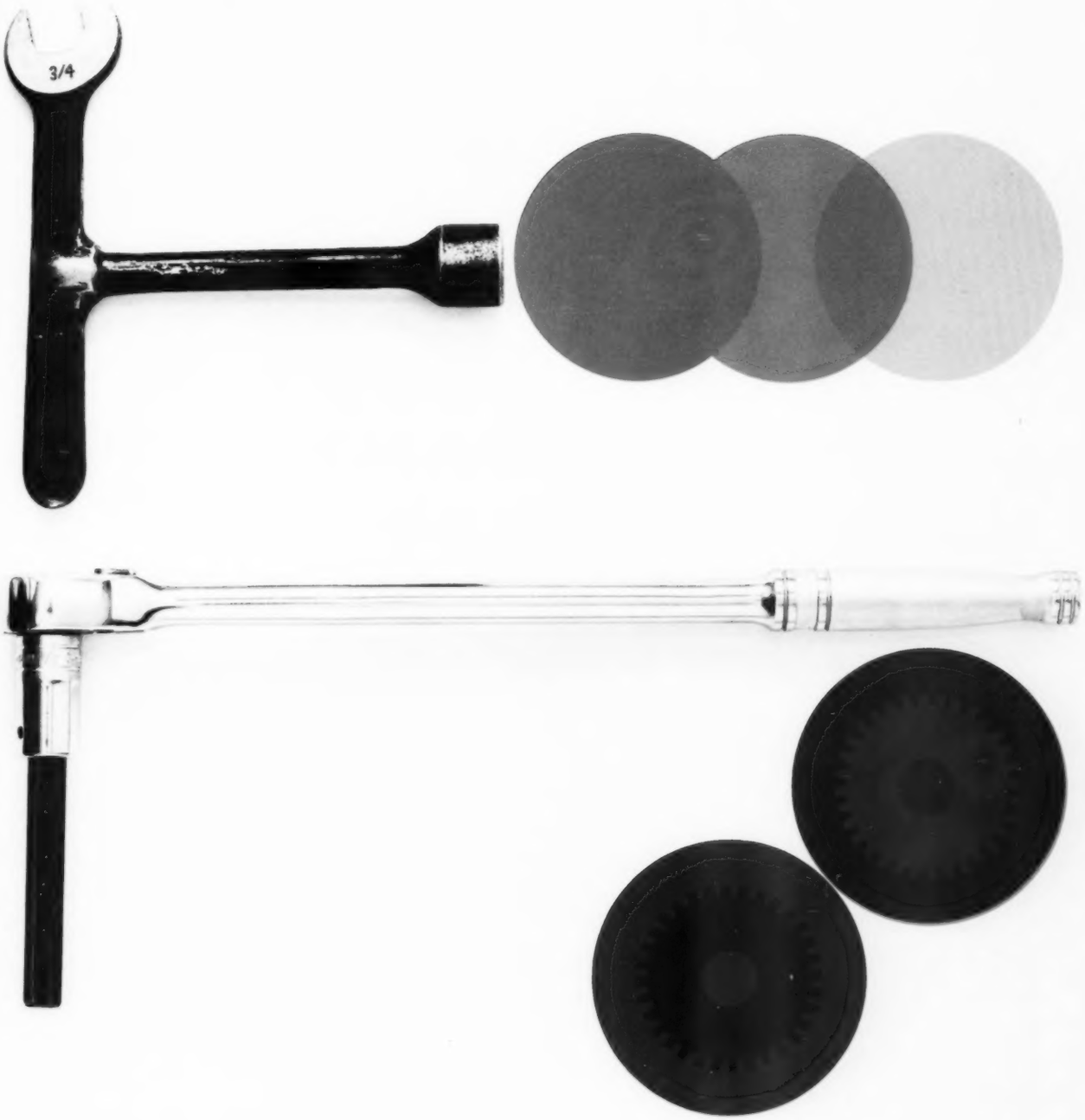
A series of information sheets on its line of letterpresses has been compiled by Mergenthaler Linotype Co. Presses described in the literature are the 17½ in. by 22½ in., 18 in. by 23 in., 22 in. by 31 in., 25 in. by 38 in. and the 31 in. by 44 in. models. Each sheet is fully illustrated. CIRCLE No. 322 ON READER SERVICE CARD.

ROLL LEAF EQUIPMENT

A catalog describing Brighten roll leaf equipment has been issued by Griffin, Campbell, Hayes, Walsh, Inc. Model LS Brighten leaf feeders are made in 15 in. and 22 in. single and three draw models with an extra ¾ in. width for optional use. Other equipment includes a cutting machine and a heating plate. CIRCLE No. 330 ON READER SERVICE CARD.

ANTI-OFFSET SPRAY

The Yahnke Dri-Spray system for offset prevention in letterpress, offset lithography, carton work and rotary operation is described in a pamphlet from J. G. Yahnke Co. CIRCLE No. 340 ON READER SERVICE CARD.



THESE 2 TOOLS ADJUST YOU TO NEW PRINTING EFFICIENCY

The new Hoe Colormatic* press unit proves the point that "a masterpiece is an exercise in planned simplicity." Two tools make all operational adjustments! Working mostly from outside the unit housing, your pressroom personnel need only these two tools to silence the entire unit, or silence individual printing couples, or change direction of cylinder rotation, or adjust the variable stroke of ink drums, or set printing impression. This two-tool operating simplicity is but one of many points of Colormatic efficiency. 70,000 PPH is its tempo, if you need it to meet your production requirements. But remember, whether it's in maintenance, speed, or color fidelity, Hoe builds a bit of tomorrow into today's equipment. Look to Hoe for progress in printing. R. Hoe & Co., Inc., 910 East 138th Street, New York 54, New York.

HOE

*TRADEMARK

Everybody in the newspaper business gains—from newsboy to publisher—when you use REEVES Vulcan PRESS BLANKETS. Better business with a better looking newspaper! Clearer reproduction. Longer press runs. These top quality packings are the only press blankets in which all materials are made by one manufacturer, REEVES. Improve press runs with REEVES Vulcan PRESS BLANKETS.

REEVES

VULCAN

Eastern distributor: Niles and Nelson, 75 West Street, New York 6, New York
Western: California Ink Co., Inc., 545 Sansome St., San Francisco 11, California

For More Information Circle 171 on Reader Service Card

PRINTING PRODUCTION

If War Should Come . . .

WHERE does the printer stand if war or a national emergency should be declared as the result of Soviet pressure on Berlin? This eventuality depends primarily upon the kind of business in which he is engaged.

In the event of a major conflict, Graphic Arts companies will be affected in different ways. Three critical metals will immediately come under control: steel, aluminum and copper. This would have specific effect upon printers, platemakers and binders who use such materials in quantity.

The printer may also be asked by the Government to produce an essential printed product. A Government survey taken last year of printing equipment in place in the U.S. provides information needed for this purpose in a national emergency. Contemplated action would include searching for a facility able to produce an essential printed product, demand for which had outstripped normal supply in a period of industrial mobilization, and locating facilities to which vital production could be transferred from an area knocked out by enemy attack.

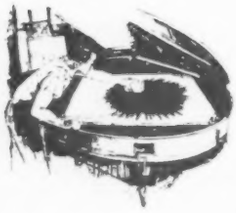
Occupation-wise, the printer is not considered critical in industrial mobilization planning and would receive no deferment from military duty if he is within the prescribed age limit. Certain occupations are considered critical (production planners, engineers, technicians and chemists), but these apply to the essential industries, not printing.

Some ask, are there any immediate steps which can be taken? Washington urges the printing industry to take all applicable measures to assure continued production in the event of an attack. Measures adopted by various companies include the storage of duplicate essential records in more than one location, the establishment of an alternate chain of command, and selection of alternate sites for continued operation.

Owners of companies must also protect the job rights of reservists who have been ordered to active duty. Existing law requires that their civilian jobs be offered to them after finishing military duty. Reservists should insure this right by asking formal leaves of absence from their jobs.

Printing is as necessary a commodity to the operation of a country in war as it is in peace. Printers should take steps now to insure that their plants will be ready to meet whatever is demanded of them—and to meet these demands with the greatest possible speed.

By **RODNEY G. BROWER,** *Assistant Editor*



Litho's Unsolved

Make or Buy Your Plates?

Lithographers and trade platemakers speak frankly on one city's platemaking requirements and the factors determining the source of supply

WHAT are the practices of one American city's lithographic industry in fulfilling its plate requirement? Do the litho printers prefer to make their own plates or buy them direct from a trade platemaker?

Cleveland was recently chosen as a testing ground to seek out answers to this unsolved litho problem. We talked with production management men, trade shop owners, presidents of companies and those responsible for the operation of a plant's litho department.

There is a wide variety of individual opinion among the people concerned with this situation. Without question, however, there is a clear indication that offset printers prefer the independence of having their own platemaking departments. Among those contacted, twice as many reported making plates within their plants as obtained them from trade platemakers. Comments such as "a definite necessity and essential part of a litho shop" and "wouldn't give up our plate department for anything," showed that lithographers were emphatic in their preference.

Yet the litho printers acknowledge that trade shops are a valuable asset to their over-all operation and readily admit to relying on these specialists for their plate needs, particularly the more complicated work. Such remarks as, "we can go to more than one trade shop if needed," and "they have more skilled help, more equipment and do the work quicker and better," are plus factors in favor of the trade platemaker.

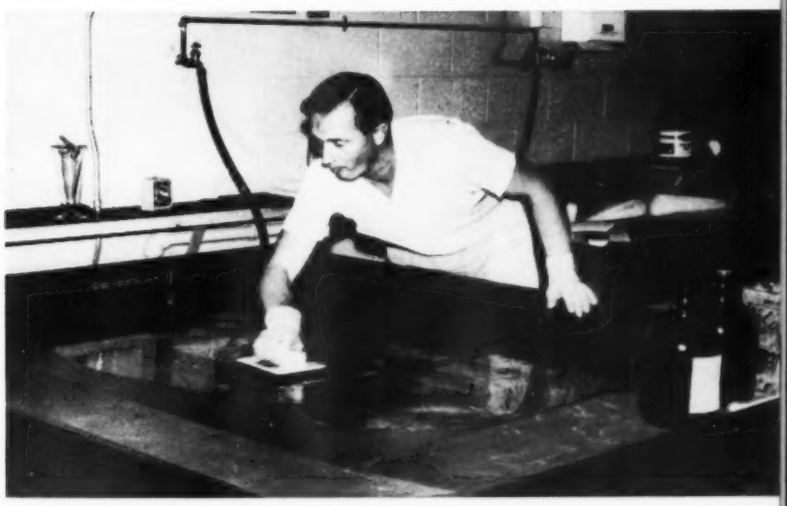
Convenience, economy and control of quality and production were the reasons most frequently given for a firm making its own offset plates. Typical of the comments were those of Peter Bandy, Crane-Howard Lithograph Co. Bandy stated that by doing its own plates the firm can control production flow, obtain better quality of work and "achieve a certain degree of dependence that can't be maintained if plates are done by an outside trade shop."

Approximately 80% of the plates used at Crane-Howard are made by four combination men while the remainder are done by outside platemakers due to production scheduling.

Disagree on Quality

A. K. Lanning, president, Bedford Lithograph Co., commented that no two people see eye to eye regarding plate quality. He felt that it is asking too much of a trade firm to agree with your line of thinking as to what is good plate quality. The ease of

d Problem:



An exposed plate is developed on a down draft table in William Feather Co.'s newly enlarged plate department.

Four color process negatives are stripped up at Cleveland's Crane-Howard Lithograph Co.

Staging out operations on a 56 in. by 77 in. plate are performed by Copifyer Lithograph Corp. employees.

scheduling work when controlling your own platemaking and the ability to remake press plates without having to rely on an outside trade shop were other reasons Lanning stated in support of his firm's plate department.

Lanning added that he felt it was easier to control good customer relations and maintain personal satisfaction in the job when the plates are made within the plant. He added that there is "no personality in your work" when plate jobs are farmed out.

"A definite necessity and an essential part of a litho shop," was the answer Lanning gave to a question about advice to a new firm starting an offset operation or a firm converting to offset regarding installation of a platemaking department. He said that he felt there was no sense of getting into lithography unless the firm had its own plate department.

Expedience was a major reason given by Leonard J. Stone, president, Multicolor Offset and Printing Corp., for maintaining a platemaking department. Stone said the firm was able to get rush work when needed as well as remake bad plates while holding the presses.

Remake Causes Press Delay

Andrew Kovach, owner of Kovach Color Studio, indicated that with color plates, remake time would cause too great a delay in press time to have an outside source supply the plates.

In doing color work a firm's own plate department was termed a necessity by C. H. Davies, co-owner of Short Run Color Corp. Davies said that his plate department was maintained for facility more than for economy due to the nature of the majority of the type of work produced—short, fast jobs where a plate break would be detrimental to production.

A representative of Ralph J. Bishop Co. stated that convenience was the chief reason for maintaining a plate department so that any plates could be remade at a moment's notice. He added that for simple operations a plate department has its advantages and he "wouldn't give it up for anything."

Having a job under control at all times was an important reason for a plate department as cited by S. G. Swanciger and Frank Bohna, co-owners, Swan Litho & Printing Corp. The same sentiments were ex-

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Speed-up of hot metal makeup offered by system developed at Garden City (N.Y.) Newsday

Hot Metal Pasteup for Ad Composition

By **ALLAN M. WOODS,** *Production Manager, Garden City (N.Y.)* Newsday

THE term "pasteup" can now be applied to the handling of hot metal type composition. A technique, to be known as the Striptype Process, has been developed at *Newsday* to achieve faster makeup of newspaper display advertisements.

Linecomposing machine type composition and illustrations actually are "pasted" into position following a recommended stripping and mounting procedure.

A feature of the hot metal pasteup system is that the type is stripped to 16 ga. thickness with proper spacing between individual type lines; also, large type lines and block spacing and positioning are obtained as in photocomposition pasteup. Another way to express a feature of the system is that the Striptype hot metal pasteup method also sets white space.

Most of the tedious cutting and positioning of spacing materials is eliminated. Composition is simplified and the degree of skill required for this type of work is reduced greatly.

Standard type lines from the Intertype, Linotype and Ludlow machines are used in the actual composition of an advertisement. Along with the cuts the stripped type is brought up to type height in the form.

After the proof has been corrected and OK'd, the made up page form is ready to be molded by the stereotype department.

Partial Page Ad Pasteup

A form may be made up entirely of a hot metal pasteup, or it may consist partly of type high slugs and a pasted up partial page advertisement.

The heart of this hot metal makeup process is a simple method for holding the lines of type together in proper alignment by applying a strip of clear but thin adhesive cellophane tape directly on the face of the type.

The slugs on the galley are separated into small blocks with a razor blade to facilitate stripping in a composing room saw.

The type blocks held together by the cellophane tape are placed in a special vise on the saw and the type matter is cut to 16 ga. thickness.

After stripping, the type is the same thickness as a 16 ga. zinc engraving or stereotype flat cast. This thin group of type lines can then be adhered to any suitable flat base in any position desired, without further spacing or cutting of spacing material.

In addition to developing the means of accurately shearing the face from groups of type lines, *Newsday* has worked out a technique for the composition of ads, using all of the advantages available with the sheared type.

Steps in Process

To describe briefly the steps in the process, the following operations take place in sequence:

The type matter for an advertisement is spaced out on the galley. Blocks or groups of type have been leaded as called for in the layout.

Now a long strip of transparent cellophane adhesive tape somewhat wider than the widest measure is pressed directly upon the type face.

Next a razor blade or sharp knife is used to cut apart the type groups into blocks suitable for locking in a special vise of the composing room saw. The block is locked in the vise with the type face to the right.

When the work table bearing the slugs advances toward the saw, the type face side of the slugs is stripped off to 0.065 in. or 16 ga. thickness. The group of stripped type lines (held together by the tape) now tilts outwardly and down where it comes to rest in a pan. After the groups of type lines have been stripped, they are replaced on a regular type galley and are taken to a pasteup or light table.

Illuminated Makeup Table

In Fig. 6 will be seen the makeup table. The table is fitted with frosted glass top with underneath illumination. The glass top is ruled with a grid of horizontal and vertical lines 6 pts. apart. These assist the makeup man in placing the stripped type lines and/or blocks in the exact position of the layout which has been placed over the glass table top. However, it is not necessary to use the illuminated table and transparent layout when making up ads. The makeup can be done in normal manner on a standard ad makeup bank from an opaque layout. Use of a transparent layout, however, eliminates the need for constant measuring and reference to the position of other elements in the ad.

The next operation for the ad makeup man is to lay a thick sheet of transparent Plexiglas over the ad layout which has been placed over the glass top of the table. The protective covering is removed from the Plexiglas to expose a very tacky adhesive covering its upper surface. The makeup man can see through the transparent Plexiglas plate so that all details in the ad layout are visible.

The makeup man now places the stripped type and engravings and/or stereo casts on the adhesive surface as indicated by the layout. A simple Plexiglas tool curved at one end assists the makeup man in positioning type or cuts exactly.

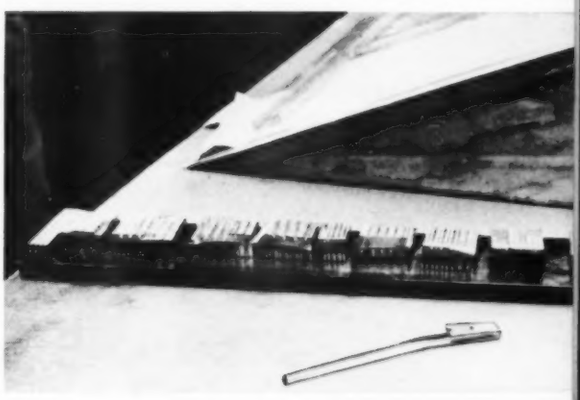
After assembling the type and illustration elements on the Plexiglas (see Fig. 9), the made up ad is ready for proofing. The made up ad is mounted on a metal or plastic base to bring it up to type high. The assembled ad with base is placed on a standard ad galley. The ad is proofed by standard methods on a regular proof press.

Occasionally, when a large open space area occurs in an ad, it will be necessary to put a piece of paper on the sticky surface of the Plexiglas base plate to prevent the proof paper from sticking to it during the

Pictorial Story of Hot Metal Makeup

1

1—The type for a display ad has been spaced out on a galley. Wherever possible, complete groups are spaced exactly as they appear in the layout. However, single lines or any lines which will need to be cut in (such as prices) are grouped together without spacing. Then a long strip of transparent adhesive cellophane tape is placed upon the entire surface of the galley of type.



2

2—Using a sharp knife or razor blade, the cellophane tape is slit crosswise between the lines of type at intervals of about 2 in. These type groups will fit into the workholder on the stripping saw.

3

3—Operator is placing block of type with the cellophane tape still attached to its face into the workholder of the saw. This is a converted Hammond Glider saw to which has been attached vertical and horizontal locking devices to hold the type on its side for the stripping operation. The locking devices are air-actuated under 70 lbs. pressure p.s.i.

4 ↑ 5 ↓

4—The saw has almost finished cutting through a block of type lines. The stripped block is nearly ready to be deposited in the tray on the table top.

5—The galley of type blocks has been stripped. All of the lines of type are now 0.065 in. thickness. The type lines are still being held together by the cellophane tape.

6

7

8↑ 9↓

Pictorial Story of Hot Metal Makeup

(Continued)

6—The ad man now prepares for the makeup of the ad. The light table has a frosted glass top illuminated underneath. A grid of horizontal and vertical lines spaced 6 pts. apart is etched in the surface of the glass. These lines enable the makeup man to assemble the type elements exactly parallel to the top and bottom of the ad. In this picture the printer has placed the ad layout face down. Hard tissue layout paper is preferred—it makes it easy to see the layout sketching.

7—The ad man has placed a sheet of transparent Plexiglas plate on top of the light table and is peeling off the protective coating to expose the very tacky adhesive coating on the Plexiglas.

8—The engravings and flat casts (shaved to 0.065 in.) have been laid down on the adhesive surface exactly as indicated in the layout and the printer is now laying down the type groups. In this picture he is placing one group down and is using a simple tool made from a piece of Plexiglas to the flat end of which has been applied a piece of sticky double-coated tape. This flat, sticky surface will hold the face of the type group just enough to permit careful placing of the type element in correct position. Single lines are laid down by hand or with tweezers. Lines can be lifted and moved as necessary with a small prying tool. In this same manner corrections can be made when necessary.

9—The completed ad mounted on the Plexiglas plates is now ready for the proof press. A metal or plastic base which will bring the type surface up to 0.918 in. is placed beneath the Plexiglas sheet on a standard galley. Standard proofing methods are used. After proofreading, the ad can be corrected by removing desired lines and replacing them with new. The adhesive remains tacky indefinitely. The proofread and corrected ad is ready for stereotype mat molding. During molding, the mat will not stick to the exposed adhesive in the pasteup. Standard stereotyping procedures are used.

proofing operation. Otherwise the proof paper will tear.

After proofreading, the ad can be corrected by removing desired lines and replacing them with new ones. The adhesive remains tacky indefinitely. If it is desired to remove a whole type group, it is possible to scribe around the group with a sharp knife or razor, lift the entire group, adhesive sheet and all, and place it in its new position.

During the stereotype mat molding operation the mat will not stick to the adhesive. Standard stereotyping procedures are used.

A device for soldering the corners of mitered rule boxes is used in connection with the hot metal pasteup system. After welding, the boxes can be placed in any position on the pasteup as indicated by the layout. Standard linecasting machine borders can be used for boxes provided they have been stripped on the stripping saw. Or the borders cast to 0.065 in. or 0.152 in. on the new Elrod molds can be used.

The equipment consists of a resistance soldering transformer, a soldering point and a jig for holding the mitered rules square. No solder is used. The tip of the heated tool is rubbed lightly over the joint to be welded for a very brief period of time. While being welded, the rules are held at right angles in a jig to insure right angle positioning.

Variable Methods Can Be Used

Advantages of this method should be obvious to printers and others who know in detail the amount of work and skill required with the former method of ad makeup. To these people, the process is flexible. It provides a basic means of handling a wide variety of different kinds of ads under many different circumstances.

There are a number of other ways in which the process can be applied. Some of these are described briefly below.

The stripped type can be applied directly to Elrod, Monotype or stereotype base without the use of the light table and the Plexiglas sheet. This is done by covering all or part of the base material you wish to use with double-coated adhesive tape. Or, if desired, a liquid adhesive can be applied directly to the surface of

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M.I.T. Scientists Devise Fast Typesetting System

A COMPUTER, special typewriter and photographic typesetting machine have been teamed up by two scientists at Massachusetts Institute of Technology, Cambridge, Mass., in a system that produces a typed draft and set type from one keyboard operation.

According to the M.I.T. release, a draft of any book or document is typed on a paper tape punching typewriter—a common office machine which produces typewritten pages and at the same time punches the text in code on a paper tape. The typewritten draft is proofread, and then editing instructions are typed to produce a correction tape. The tapes are next processed by a computer that performs all deletions, insertions and other editorial changes at high speed, turning out a master tape of the correct, proofread text.

Tape Runs Phototypesetter

The master tape, which contains directions for selection of letter size and style, justification and format control, is used to operate a phototypesetting machine. (A Photon machine was used in the M.I.T. experiments.) A finished positive on film or paper, ready for reproduction by offset or letterpress is furnished by the phototypesetting machine.

Developed by Prof. Michael P. Barnett and Kalon L. Kelley as a byproduct of research in theoretical chemistry, the system has the following features:

An IBM 709 computer is said to have averaged 20 sec. per page when editing some sample material. At this rate, it could carry out the mechanics of editing a 400 page book in a few hours.

The Photon machine produced printed output faster when driven by a computer tape than when operated from a keyboard.

If only a typescript is necessary, the typewriter and computer can be used alone to edit and produce corrected typewritten documents. A tape can be produced by the computer to operate the typewriter as well as the phototypesetting machine.

When it is necessary to print long tables of numbers or other information created by the computer as the result of lengthy calculation, the computer can convert these results into the code and punch them on a tape. The tape can then be fed to the typesetting machine for composition.

Instructions that control the phototocomposition machine in printing elaborate mathematical and chemical formulas can be punched by the computer when it has been provided with descriptions of the formulas prepared on the tape punching typewriter.

Among the uses suggested for the system are updating and reprinting books such as manuals, dictionaries, catalogs and directories; printing technical documents, and printing documents that demand instant distribution.

The M.I.T. tests were carried out with a large IBM 709 computer. However, the system could also operate with smaller computing machines, such as the IBM 1620, although at a slower speed.

Hand Microscope Aids In Spotting Litho Troubles

THE question of what to do with a 50X hand microscope of a recommended type may be hindering some firms in equipping all of their pressmen with these handy magnifiers. As a result of such situations, Charles W. Latham, Lithographic Div., Printing Industries of Metropolitan New York, Inc., has compiled a list of suggestions on the use of these instruments for litho plants.

The edges of dots, lines and reverse type always should be inspected. Dots and type are easily seen with a 10X magnifier, but the clue to trouble lies in the edges, which can best be seen with a 50X instrument.

Practice in evaluating the relative sharpness of dot edges is required. At first all look alike, but a little study will generally distinguish a sharp edge from a soft edge. Looking at a three-quarter tone, in black ink on coated stock, may show that one side of each white dot has a blurred edge. If such is the case, the press is not printing the tone as it appears on the plate or in the negative.

To understand how the press sheet should appear, look at the dots in a negative or on a plate and compare them with dots on the sheet. In good printing all will look pretty much alike.

In offset, even on coated stock, the dots will have edges that are not quite as sharp as letterpress. There will be small irregularities. If they are ragged on one side only it denotes a slight slur and this will increase the tone in proportion to the amount of slur.

Look for flecks of white in the dots and in solid areas. This means a weak tone. Look for dirt in between dots because this condition can cause muddy tones. Look for squashed dots that may mean too much pressure or ink.

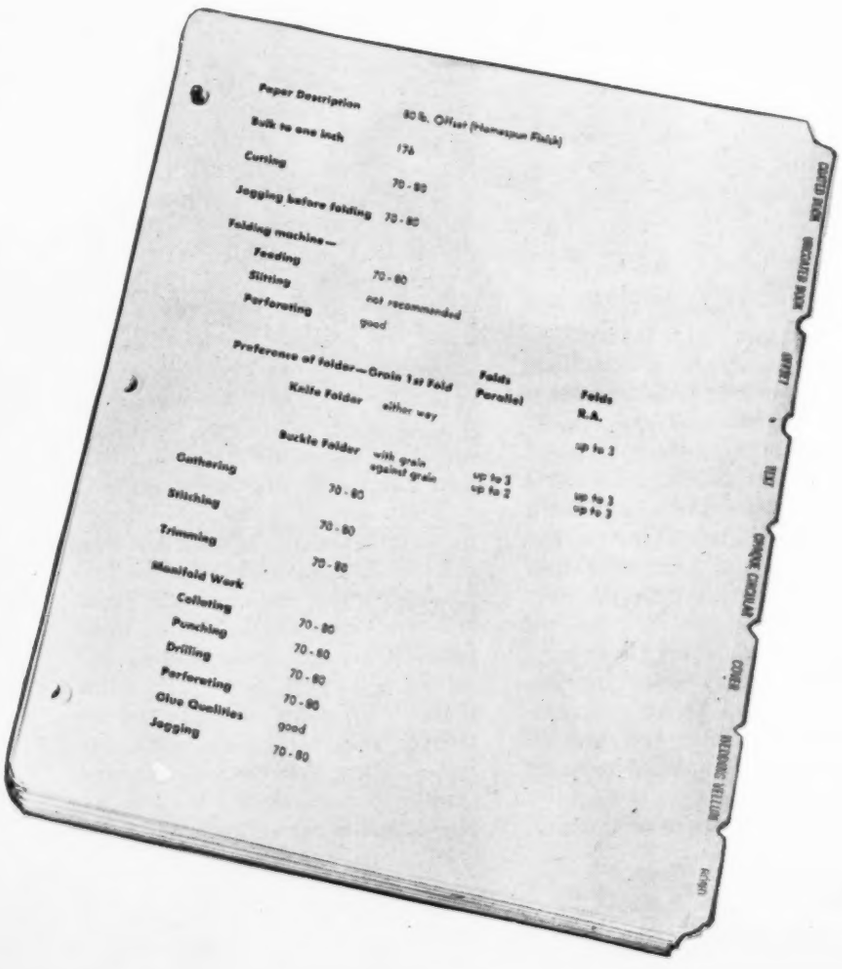
Remember that the more you examine sheets with the microscope the quicker you will learn to evaluate the quality of the printing your presses are putting out. Learn the difference between a slur and a double and be able to recognize the condition caused by too much water, or too much ink or too much pressure. These are the conditions that ruin plates and lower quality.

There are so many little things that are beyond normal vision that it is like entering a new world when you start to use a microscope. Troubles experienced in lithography generally manifest themselves visibly in a very small way. Look for these little signs of approaching trouble with a powerful glass, because when the trouble becomes visible to the naked eye, it is too late to make corrections.

Paper Performance in the BINDERY

Ratings by New York City binders in 'Paper Reference Manual' show how paper behaves prior to actual use

By **FRANK B. MYRICK,** *Trade Relations Manager Dexter Company, Div. Miehle-Goss-Dexter, Inc.*



PAPER is the keystone of success in any printed piece and its selection for purpose, finish, printing and binding quality is of the highest importance. It is often—almost always—the least costly item of the job and consequently its importance is frequently overlooked in such generalized observations as this:

"Let's use Brand Y. It's much cheaper, bulks up nice and prints beautifully."

This is fine, provided the essential requirements of the job have been satisfied at that point. But many printed jobs require finishing in some form, either as a one fold, a letterfold for mailing, an enclosure for a magazine or in some other bindery operation.

Behavior After Folding

Most printers and their customers are well aware of the printing qualities of the hundreds of grades, finishes and brands of papers they process. And in a roundabout way, they are reasonably aware of the performance of some of those papers in binding. Certainly almost every paper folds fairly well—but how does it behave after it's folded?

Frequently a printer and his customer find out only too late. With lessons learned the hard way, a mental note is made not to use that stock again. An estimator or production supervisor may learn a lot the hard way, and if he is wise, he'll keep a record on various operations so as not to mousetrap himself on job after job.

This is a record which should be checked out from time to time against actual performance on various jobs. Why? Various grades within the same finish are likely to perform differently and with many new paper finishes making their appearance each year, it is no simple task to keep up with performance records of various operations.

Prefigure Stock Performance

In the industry, however, there exists a handy tool with which an estimator can prefigure the performance of a given type, weight or finish of stock. This tool is based upon the collective experience of a group of professional New York City trade binders who have collected the results of some five years of study into a single book.

These recognized authorities include: Mortimer Sendor, Sendor Bindery; William Ginsburg, Practical Bookbindery; George Schwartz (deceased), Houston Bindery; Nathan Reimer, Reimer Bindery; John Victor, John Victor's Bindery and Charles V. Morris, Allan & Gray.

Originally published in 1955 by the Binders Group, Printing Industries of Metropolitan New York, Inc., (formerly New York Employing Printers Assn.), the *Paper Reference Manual* is now being brought up to date with many additions of new types of paper and some modifications of ratings on stock already covered.

Its contents are sample sheets (see illustration) of virtually every weight, finish and grade of such commonly encountered stocks as coated book, uncoated book offset, text, opaque circular, cover, wedding vellum, ledger and mimeo. Also, duplicator, onionskin, manifold, safety, index, bond, printing bristol, gummed, parchment, blotting, blanks, postcard and tag.

Ratings for Bindery Operations

On each sheet are listed performance ratings of papers in common bindery operations such as cutting, jogging before folding, feeding, slitting, perforating on the folder, preference of grain direction on knife and buckle folders, how many folds in parallel and right angle sections of a buckle folder and how many folds on a knife folder. Also rated are performance in gathering, trimming, stitching, collating, punching, drilling, perforating, gluing and jogging.

To determine the performance ratings of these papers, it was decided to rate them at some percentage of 100% or an ideal running situation. In order to achieve uniformity, all the committee's ratings had to be ultimately unanimous.

The ratings in the catalog also give the bulking tables on each type of stock so that the time needed to cut the stock for the folder after printing and the cover before folding can be easily computed. High bulking papers, those that give comparatively few pages per inch, present penalties in the sheer amount of handling that must be performed to process the job.

Let's make a practical application of the manual to a hypothetical but typical job. Here are the specifications: 5000 copies of a 32 page book on a 38 in. by 50 in. sheet of substance 100 text, plate finish, trim size 6 in. by 9 in. The job is to be printed in 16 page sheetwise forms. Imposition is to be supplied by the binder. Cover: Substance 65 high gloss cover, coated one side, cut from a 26 in. by 40 in. sheet.

First, consider the effects of bulk. Beginning at the press, you'll have to load your feeder more often and because of lint from the stock, you may have to wash up the press more frequently. If the paper has to be cut for the press, some trouble in jogging may be encountered at this stage as well as later.

You may not be handling as much weight with 100 lb. text as in the coated book papers but you will encounter slow downs and added processing in almost all operations. This might well be eliminated by the choice of another paper. Bulky stock is spongy and increases the number of lifts put through the cutter. It also produces trouble in cutting, requiring additional clamp pressure and careful handling.

Let us continue to follow through our hypothetical job comparing what the results of ratings of other stocks, which we might have used in place of those specified, would have on our production. In this instance only bindery operations will be considered.

The high gloss coated cover bulks 152 sheets to the inch so that in cutting a 26 in. by 40 in. sheet down to our cover size for printing we will be able to cut approximately 350 sheets per lift. To cut the eight covers out of each sheet, we'll be cutting about 700 sheets or two lifts. Each weighs roughly 85 lbs. Applying the Production PAR tables issued by Printing Industry of America, we find that we need about 15 min. to cut the cover stock.

Additional Cutting Time

Our paper manual shows we are going to get 30-40 or poor production on cutting due to the slippery stock and the consequent problems in jogging and clamping. According to this rating, we'll get only 40% of rated production which will result in an additional 15 min. We'll spend twice as much time as estimated by the PAR tables with a cutter selling at about $10-12 per hr.

Already we've added $3 to our cost. This does not sound like much at this stage of the estimating but there are several more calculations to make.

Suppose then, we see what else might be used for the cover. Reference to the catalog shows that the same basis, coated two sides, cover, etc., enables us to cut 500 sheets per lift or about 150 sheets more per lift with better speed. It will feed much better on the folder; work moderately well on gathering, stitching and final trimming, and could save time and money on the job. Fortunately, the job is to be run one up so there is no need for slitting on the folder, which might otherwise produce trouble even on this stock. Frequently slitting the right kind of stock on the folder can offer considerable savings, if there is a hurry and no critical trim line to be maintained. Be sure that the stock can be slit without difficulty, else you'll ruin

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TIME COMPARISON OF BINDERY OPERATIONS

	65 Lb. High Gloss Coated One Side	65 Lb. Coated Both Sides	Add. Time Required	Add. Costs On Job*
COVER:				
Cutting	½ hr.	¼ hr.	¼ hr.	$3.00
Folding	2 hrs.	1 hr.	1 hr.	10.00
TEXT:				
Folding	5 hrs.	3 hrs.	2 hrs.	20.00
Stitching	2¼ hrs.	1½ hrs.	¾ hrs.	9.00
Trimming	2¼ hrs.	1½ hrs.	¾ hrs.	9.00
TOTAL	12 hrs.	7¼ hrs.	4¾ hrs.	$51.00

*Hour costs based on recognized regional figures.

Acceptance of new plant procedures urged on Craftsmen; convention in Chicago elects Imperial as president. By MacD. SINCLAIR, *Consulting Editor*

Craftsmen CONDEMN Outworn

OUTWORN plant and industry practices were condemned, directly and indirectly, at the technical clinics during the International Craftsmen's convention held last month in Chicago. In many instances, it was a frontal attack on obsoleted methods by speakers who were reporting on technological changes in the printing industry.

One of the strongest exponents of doing something about outworn practices was J. Russell Parrish who drew attention to the plight of letterpress research. In comparing this situation with offset research, he declared: "Probably less money is spent percentage-wise on letterpress than on any other process. The lithographic industry as a whole has supported a research program consistently over a long period of years. Now it is paying dividends."

Parrish is manager of mechanical research and materials testing for Meredith Printing, Inc., Des Moines, Ia.

700 Attend Convention

The convention, planned under the direction of Gradie Oakes, general chairman, reported a total registration of over 700 persons.

In important elections, the Craftsmen elevated Michael Imperial, University City, Mo., to the office of president; Roy Gurney, Toronto, Can., was elected vice president. Three new members of the board of governors were chosen: Lou Van Hanswyk, New York; Charles Wene, Chicago, and J. Fred Oglebay, Austin, Tex.

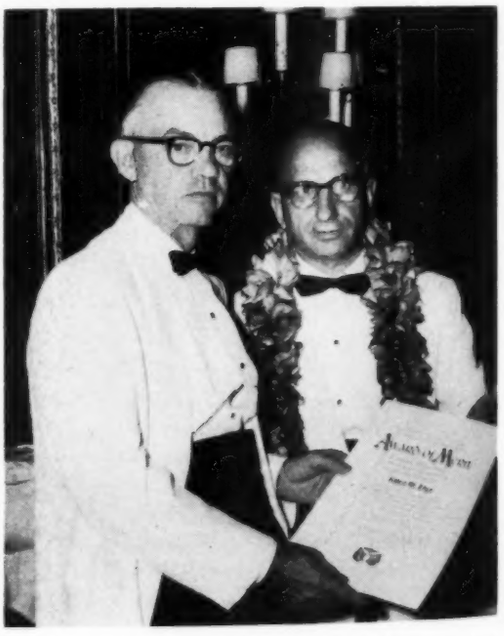
The 1962 convention will be held in Pittsburgh, Aug. 12-15, at the Pittsburgh Hilton Hotel. Eugene Sabina is the general chairman.

To illustrate the need for letterpress research, Parrish said: "Ever since Sputnik I, the United States has been involved in a mad scramble to recover the coveted prestige we once presumed was ours. The basic activity is prompted by reactions and opinions expressed by you and I as citizens of this country. . . . This same type of spirit is needed in the letterpress industry in order to lift ourselves out of the doldrums."

The speaker discussed the tremendous advances which have been made by the offset printing industry. He suggested: "Rather than moan about it, let's analyze it.

"The lithographic industry, as a whole, has supported a research program consistently over a long period of years. Now it is paying big dividends. I do not pay tribute to lithographers so much for their accomplishments as for the continuing faith in their objectives. They have learned to accept research as a normal cost of doing business."

Rather pointedly, Parrish said: "We who basically are engaged in letterpress, have come to look upon lithographers as our major competitors. Most lithographers have taken a different slant. They feel that the lithographers down in the next block is their biggest competitor. If they fail to keep abreast and make use of every new development suited to their needs, they will soon be lost in the shuffle. This line of thought breeds competition—not the unwholesome price cutting type—but that which is based on ingenuity, careful analysis, and an educated ability to sift new ideas carefully. All this to promote higher quality printing at costs for which the customer will pay and still leave a fair



Craftsmen president Robert M. Edgar receives award from new president, Michael Imperial.

Newly elected officers of the International Assn. of Printing House Craftsmen. Front row, left to right: Harry M. Faunce, treasurer, Boston; Michael Imperial, president, St. Louis; Roy Gurney, vice president, Toronto, Can.; Pearl E. Oldt, executive secretary, Cincinnati; Robert M. Edgar, past president, Pittsburgh. Back row: Governors Lou Van Hanswyk, New York; Robert B. Faerber, Birmingham, Ala.; Alan B. Holliday, Lancaster, Pa.; Charles C. Wene, Chicago; Paul O. Giesey, Portland, Ore.; Fred J. Oglebay, Austin, Tex.

margin of profit for the printer."

Pursuing the subject further from an industry-wide standpoint, Parrish stated that as compared with other industries, very little money is spent in Graphic Arts research. Probably less percentage-wise is spent on letterpress than on any other process. However, the speaker stated, the current picture is encouraging. Since World War II considerable sums of money have been budgeted and we are beginning to reap the harvest. It is commonly felt that the long term benefits of research usually are not realized in less than 15 years.

Parrish reviewed briefly some of the research accomplishments in the letterpress section of the printing industry. He said: "In order to compete with the low preparation costs of offset, the greatest activities have been in the fields of composition, photoengraving and platemaking. There is much yet to be done. It is encouraging to note the rapidity with which certain sections of the letterpress industry are taking hold of these new concepts. Additional work now under way promises tremendous savings.

Speaking directly about letterpress' need for a better press packing, he said that such a packing having an accuracy of ±0.0001 in. soon will be available. The new packing will have longer life and can be used on more than one form.

Parrish stated: "I agree that the average small printer cannot afford to conduct a research program. But to be progressive and guarantee himself a good profit for tomorrow, he must make use of that part of today's research which can be applied to his business."

Don't Fear Web Offset

Richard Dunbar, plant superintendent, Inland-Magill-Weinsheimer Corp., Chicago, speaking at the offset clinic, said it is important that those in the printing industry neither fear nor ignore new Graphic Arts developments. One should, however, weigh them in his own set of economic balances.

He asserted that web offset is a very real and significant factor in the field of quality commercial printing. He asked: "But is web offset really the omnipotent, all powerful competitive menace that many believe it to be?"

The speaker answered his own question: "My personal observation . . . is that there is still a great deal of work that can't be run at all; that can't be run practically, or that can't be run competitively with other processes on a standard commercial web offset press.

"We have three web and three sheetfed offset presses. It is not unusual to walk through our plant and see a web press idle and all our sheetfed presses running. To me, this indicates one thing—that possibly web offset as it exists today is not the menace some think it to be."

Dunbar stated he seriously doubted that anyone could give a qualified answer as to how many webfed offset presses can be put into operation before the industry is saturated.

During the course of his talk, Dunbar commented: "One of these

days some bright young engineer, who is too stupid to know that it can't be done, may develop a practical variable cutoff for web offset presses. If you want food for thought, just reflect on the impact this could have on the industry."

GPO's Harrison Speaks

At the opening session of the International Craftsmen's convention, the Hon. James L. Harrison, Public Printer of the United States, was the guest speaker.

Harrison reminded his listeners that there are rapid and extensive technological changes going on in the essential printing industry. Any printing office, large or small, public or commercial, which does not keep abreast of them is doomed. It will become obsolete in its know-how, in its techniques and eventually in its production and its service.

He stated that heretofore the Government Printing Office has done an excellent job in very closely approximating the printing requirements of the Congress. But it has been made clear that approximating these requirements is not enough.

To meet these requirements, there will be no revolution nor tremendous expansion. He said that GPO's equipment generally, will suffice for the present, although there are some traces of obsolescence which must be eradicated.

The Public Printer said: "Our offset division is sufficiently extensive and modern to provide adequately for legislative printing. We have 40 offset presses—many of them fairly new—and all necessary supplementary equipment.

"There are some replacement units on order and in about a year we will take delivery on two web offset perfecting presses that will produce 32-page octavo signatures."

Harrison referred to the creation and operation of a multitude of small offset duplicating shops in nearly every department and agency of the Government. He stated: "If the GPO had facilities to carry out fully its legal responsibilities for the public printing there would be no excuse for most of these small shops and they would cease to exist. I am confident that both the Government and the commercial printing industry will benefit when the GPO handles all of its authorized work." ⊙

Recent Developments in Letterpress Technology

TECHNICAL progress in the letterpress field was the chief aim of speakers participating in the letterpress clinic discussions held at the International Craftsmen's convention last month in Chicago.

Several speakers concentrated on developments in wrap-around printing, while another dealt with level impression printing.

The session was keynoted by a talk appropriately labeled, *Must Letterpress Take a Back Seat?*, given by J. Russell Parrish (see story on page 46, this issue).

The audience was then brought up-to-date with the wrap-around printing plate developmental work for packaging-converter purposes, being conducted in the Marathon Div. plant of American Can Co., Menasha, Wis.

Fred Allen, printing development supervisor, described this activity which was started by modifying a standard Harris two color 25 in. by 45 in. offset press. The first trials consisted of placing 0.025 in. magnesium plates on the press. These were etched 0.015 in. deep. He described the converted plate inking system. (See PRINTING PRODUCTION, page 31, May 1960.)

The speaker explained steps in the platemaking process with the aid of slides. He said that one of the specific problems was how much to undercut the inking cylinder, and whether a 0.032 in. plate or a 0.025 in. plate should be used. The impression cylinder covering and undercut are still being debated, he reported.

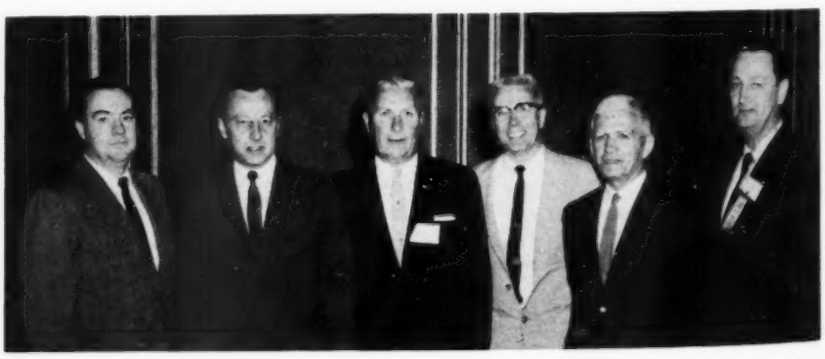
Plate register problems were overcome. These consisted of register to die and register from plate to plate. This meant going back to the virgin sheet of metal, placing pins in the step and repeat machine so the images could be registered on the sheet. Then identical pins were placed in the plate cylinder clamp back in both back and front.

While developmental work has not been completed as yet, Allen enumerated some pluses for the wrap-around project. These are: (1) Comparable makeready standards with offset; (2) Faster running speed; (3) Less than 1% waste, and (4) Density and maintenance of deep colors throughout the run.

Wrap-around Progress Report

Some additional interesting technical information regarding the Harris wrap-around plate and press development was disclosed by C. E. Wortman, merchandising manager, Harris-Seybold Div., Harris-Intertype Corp. (See earlier report, PRINTING PRODUCTION, page 50, Nov. 1960.)

He advised that the technology is sufficiently predictable for people to



Letterpress clinic speakers at the Chicago Craftsmen's convention included, left to right: Kenneth DeSoto, Heidelberg Eastern, Chicago; Charles Wortman, Harris-Seybold Div. of Harris-Intertype Corp., Cleveland; Fred Allen, Marathon Div., American Can Co., Menasha, Wis.; J. Russell Parrish, Meredith Printing, Inc., Des Moines, Ia.; Harry Ticehurst, Curtis Publishing Co., Philadelphia, and James E. Johnson, moderator, Tenak Products Co., Chicago.

International Craftsmen Commission and Committee Chairmen

(All names read from left to right)

Front row: Charles C. Wene, Chicago, representative-at-large; Lou Van Hanswyk, New York City, club bulletins; Alan S. Holliday, Lancaster, Pa., technical commission and Graphic Arts education. Back row: Fred J. Oglebay, Austin, Tex., table host; Lee Augustine, Cincinnati, participating membership; William H. Evans, Charlotte, N.C., Printing Week; Warren Taylor, Atlanta, public relations; F. Richard Eichorn, Rochester, N.Y., membership commission.

Front row: Roy Gurney, Toronto, club programs; Gerald L. Flood, Santa Monica, Calif., audio and visual aids and building fund; Gilbert LaVesser, Milwaukee, club management. Back row: Samuel Seat, Boston, club workshops; Ferd Voiland, Jr., Oakland, Calif., advisory council; Francis J. Tominey, Boston, constitution and by-laws; Howard Keefe, Cincinnati, publications commission. This group will serve the International for the 1961-62 term.

make a profit out of printing as well as platemaking. He suggested that photoengravers get into this area of platemaking—and get in fast.

Of interest was Wortman's comments regarding press makeready. He said, "Makeready time, of course, will vary from shop to shop, depending upon the skill and experience available in the pressroom. However, a range of from 30 min. to 1 hr. of makeready time before the press is producing salable sheets would be considered normal."

Level Impression Printing

The printing of millions of copies of monthly magazines from level impression plates was described by W. H. Ticehurst, plate department manager, Curtis Publishing Co., Philadelphia.

Ticehurst told about the abandonment by Curtis of premadeready electrotypes and the adoption of flat packing for the presses to permit level impression printing.

He explained that the plates needing adjustment on the press are few. Such plates are adjusted as a whole. If an area is printing heavy, the first step is to drop the entire plate by reducing the underlay on the press cylinder as opposed to cutting out only one area of the plate. In most cases, the remainder of the plate will still print with a thinner underlay and the plate still is level. Conversely, if an area is not printing firmly, the whole plate is raised, first by increasing the underlay. If further adjustment is necessary, the limit is two pieces of onion skin. Beyond that, the pressman is supposed to ask for a new plate.

For those who buy electrotypes, the speaker urged: "Buy the best electrotype that can be made. If you ask for a level plate, see that it is really level within ±0.0005 in. if possible. A fine and level highlight edge will print better than an edge treated down in the plate and then brought up past printing level by the pressman because it wasn't printing firmly on the first pullup—and a level edge heavied by careless finishing will bring on a demand for premakeready."

Ticehurst also commented that the plate curve should be no less than perfect. Encourage the pressroom to check the curve when plates are received. The best level plate will not print perfectly if the curve is not right.

Data was presented by Ticehurst about the kind of electrotype used by Curtis and its press performance.

He said: "Up until last October and printing with lead electrotypes, it was not uncommon to see 70% of the original plates with which a press had been dressed, finish a run of 7,000,000 impressions per plate at web speeds of 1400 to 1500 f.p.m., regardless of batters, changes, web breaks or any other cause for plate replacement.

"On Oct. 1, 1960, we converted our entire Sharon Hill operation which does 85% of our work, to lightweight plastic-aluminum plates. We have seen as high as 88% of the original plates finish a similar run at still higher speeds. We have seen as high as 96% of three-up forms finish a run of 2,700,000 impressions per plate, all at 1600-1700 f.p.m.

"It is our belief that this could not be accomplished by any means other than level impression printing." ⊙

Other Craftsmen Convention Stories on Pages 62 and 63

Complex business methods have made it necessary for printers to revamp their organizations through

Training from the Top Down

By **PAUL D. DOEBLER** and **COLLIER A. ELLIOTT,**
Collier Elliott and Associates, Garden City, N. Y.

A FUTURE rich in promise, opportunity and challenge faces the printing industry. But few printing management staffs are prepared to meet this future successfully.

After 50 years of resistance to change, the printer has finally been caught by the modern world. Through the pressure of big business operations in other industries, printing is being transformed from an industry of small craft shops into one of giant volume concerns. Big print buyers can no longer bear the high unit cost of craft shop production.

Thus printers have been swept into a dizzying trend toward larger and fewer firms with more specialization. Business forms, greeting cards, magazine and catalog manufacturers all are products of this trend; and it is beginning to appear in areas once considered as general job printing. The combined efforts of research laboratory, engineer and manufacturer are creating a momentum of change that is beyond the control of any one printer or group of printers.

Managements who prepare themselves for the challenge will be rewarded handsomely. Those which do not, face extinction or replacement by those that have heeded the signs of things to come.

To meet this challenge, most printing companies will have to make major changes in their management philosophies and techniques. This will require hiring new people and retraining present management—including the top men themselves.

Retraining is the Key

Retraining present top management is the key to a company's future. If the top men accept their own personal need to change and participate in training, they will encounter little difficulty in persuading lower level management and supervisory personnel to do the same.

But if top management does not accept the necessary changes personally, training people lower down the line will have little effect. These people follow the lead of management to keep their jobs. If top management shows them by action that they really do not believe in new ways, no amount of empty words will persuade lower ranks to change.

What kind of changes will be required of management?

The industry has been hearing for years about many things they need such as cost systems for factual estimating, organized production control systems, industrial engineering techniques to improve production flow and lower costs, etc.

Yet today relatively few printers, even large ones, have adopted these tested management tools. Why? Because these are tools of an organization, and most printers have not been able to create and operate the necessary organization.

The essence of modern management is the art of building and operating an organization. Above all, it is

this skill that printers who want a future must learn. For many it will be a painful process because a number of closely held ideas that have served well in the past will have to be shed.

A look at several of these passé but closely held tenets may clarify the problem.

Printers Have Job Complex

One might be called the *Job Complex* of the printing industry. Most printers visualize their industry only as a huge collection of printing jobs –big jobs, little jobs, complicated jobs, simple jobs, all different and all having individual requirements. Ask a printer how things are going and chances are he will tell you of a beautiful job he just turned out or of a job that gave him a tough time.

Printers go out to sell jobs. They usually talk jobs to their customers; they bring individual jobs into the shop. They try to figure how much money they made on the individual job. When buying equipment they think in terms of the individual jobs they will run on it. Our printing schools, even the management courses, emphasize the job as the prime unit of printing in classroom examples and in laboratories where students work on jobs.

The individual job is truly an important element in the printing industry's make-up. But it's not the only one. The *Job Complex*, however, has become an obsession with printers, obscuring other equally important concepts.

For instance, printers rarely can tell you much about their use of manpower. Such important considerations as how many hours they use in each department and what percentage is devoted to each kind of work are overlooked. Nor can they tell you much about use of available time on each machine or in each work center. Materials costs are easier to compile than time costs, yet printers seldom make these available in any meaningful form for analysis. Instead, every now and then a job is singled out for analysis of time and materials cost. This may answer a specific question at the time, but it is useless in any kind of comprehensive analysis.

Another erroneous conviction is that paperwork and routine systems are inherently inefficient and wasteful; and, therefore, a company is better off without them. This is hardly the case.

Many large organizations are bogged down in inefficient paperwork, but many others operate extremely efficient systems. The efficiency of any paperwork system depends directly on the quality of the management.

No organization can grow to any size without paperwork systems. For printers who wish to grow, the question is not whether paperwork systems can be avoided but how efficiently the systems they must install can be operated.

Still another belief that stands in the way of growth for printers is the conviction that human instinct and judgment are inherently better than objective, systematic measurement techniques for sizing up company operations.

For instance, printers hold tenaciously to the idea that they can tell accurately how much work is in the plant by walking through the departments and scanning the jobs. This works adequately in small, personal size operations although an objective measurement would work better. But personal observation definitely is not sufficient in medium and large companies where no one man can possibly see every job—let alone remember them, mentally gauge the time requirements for each department and put all the pieces together in his head to form an accurate work load schedule.

Only a precise time measurement of each piece of each job can give sufficient information to really plan a plant's production. Anything else is merely guesswork. Printers must learn to use modern measurement techniques wherever possible.

All this may sound as if modern management consists merely of reducing everything to standard measurements and formulas to eliminate the need for human judgment. On the contrary, more good judgment is required of a large firm's management. Only such judgment must be confined to areas other than day-to-day events of planning and producing jobs and making sales calls.

Whereas top management in a small company is directly concerned with the work itself, management in a large company is concerned with building and leading a team of subordinates who can handle the work. All of modern managements intricate systems and procedures are aimed at the goal of freeing as much of top management's time as possible for the work of planning and directing the company's progress.

How a Company Grows

A look at how a company grows may point up this critical difference.

Typically, a printing company starts with just a few people such as the owner and several helpers. The owner does all the management work. He makes all policy decisions, sells the product, hires and fires all personnel, personally sees to production and keeps the books.

When he finds himself stretched too thin he hires a salesman, a bookkeeper, then a shop manager. Suddenly he has the beginning of an organization.

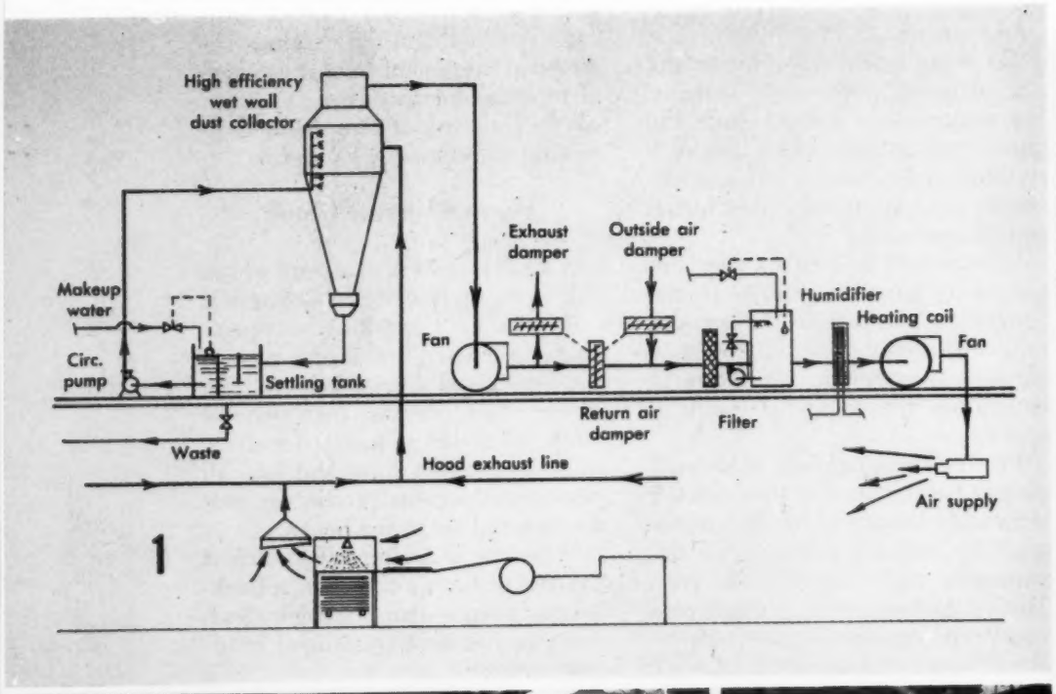
The first signs of trouble may show up here. The craftsman who started his own company may now find the work of running a business takes too much of his time, time he would rather spend working on jobs in the shop. Here he confronts the choice he must inevitably make – whether to remain a printer or become a businessman.

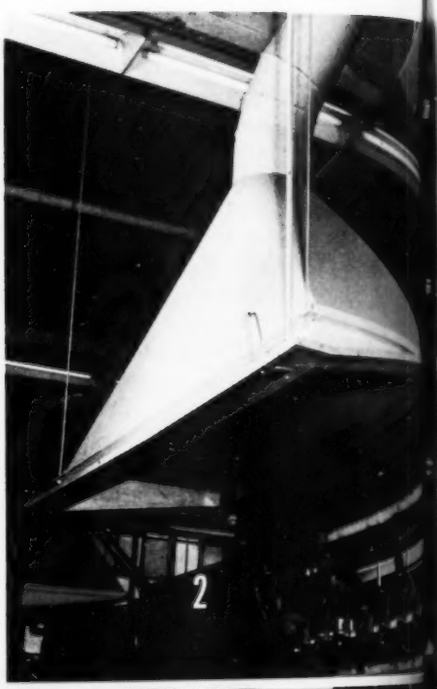
Often, the craftsman gets over this first hump easily; and he finds the new work of running the business more challenging to his sense of craftsmanship than shop work. But his organization at this point is little more than an extension of himself. Each management person,

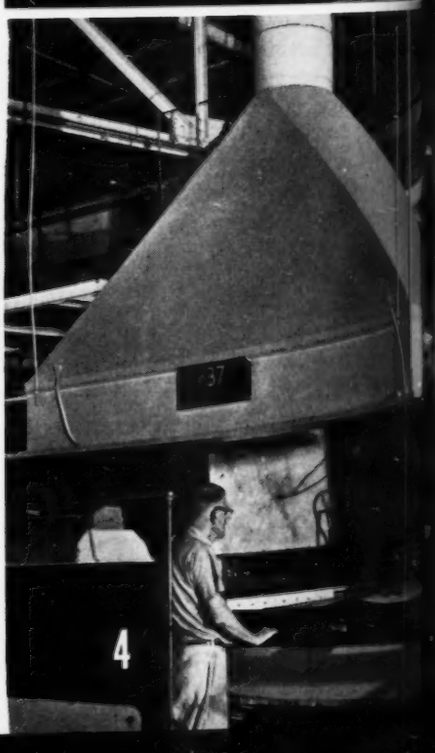
continued on page 102

Eliminating Spray Dust

Dust control and plant heating clean tempered air







from Pressrooms

systems joined to furnish at Kingsport Press

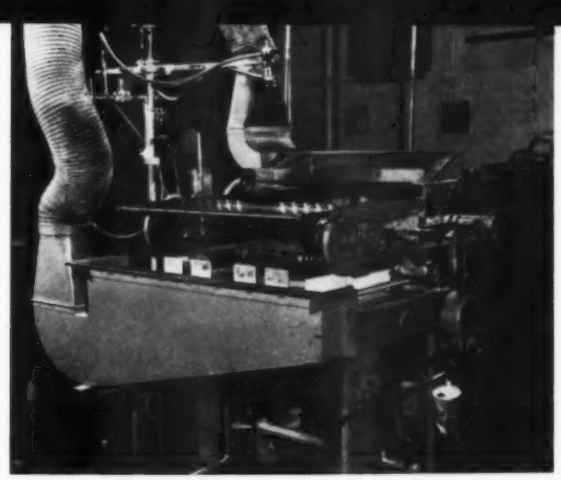


Fig. 5—Smaller presses are equipped with special hoods. This press has slotted duct at the delivery; duct is swung aside for handling skids.

By DAVID W. LEWIS,
*Project Engineer, Chas. T. Main, Inc., Boston**

PROBLEMS resulting from the use of anti-offset sprays in the pressroom are not new to the printer. There always has been a question regarding the possibility of a health hazard from breathing dust laden air.

The dust condition in the pressroom can become so severe that vision actually is impaired; washup of presses becomes more frequent as the result of collected dust falling into the mechanism; filters in heating and ventilating systems must be changed more frequently, and general maintenance of building and equipment becomes more of a problem. In general, undesirable conditions prevail.

All of these problems have been examined and discussed from many points of view. However, the final analysis usually indicates that some form of dust control would be worthwhile.

Regardless of the type of anti-offset spray used, there is always a certain portion that will not settle out on the sheet as desired. This is due to the density of the spray particles and the fact that air currents are set up by the motion of the equipment and heating and ventilating systems. The excess spray will migrate to any and all areas within the pressroom unless it is properly controlled.

A simple and straightforward method of eliminating dust in a pressroom consists of an exhaust fan located at one end of the room and an intake louver at the other end of the room. Such a system removes dust laden air and also supplies fresh air.

It is obvious that this system would be effective with respect to dust control. However, it would be uneconomical in most parts of the country where tempering or cooling and cleaning of makeup air is required. A modification of this principle would overcome these problems. It can be accomplished by recirculating the air through a suitable air filtering or cleaning system.

While either of these two systems will create the desired effect, it is apparent that the air velocities required to keep dust entrained so that it may be removed from the room would result in the room taking on the general characteristics of a wind tunnel. The obvious solution then becomes one of confining the dust to a specific area where a minimum quantity of air is required to keep the particles entrained. The dust laden air may then be removed from the pressroom, cleaned and returned as usable makeup air.

Dust Control Essentials

The problem of designing a dust control system is reduced to: (1) Establishing minimum air velocities necessary to keep the dust particles entrained; (2) Devising a suitable method of confining and collecting the dust from a specific area, and (3) Designing an effective air cleaning system capable of removing dust with particle sizes smaller than one micron.

Chas. T. Main, Inc. was called upon recently to design a dust control system for Kingsport Press, Inc., Kingsport, Tenn. The first step in the program was to determine the minimum air velocity necessary to keep dust particles entrained. This is important in that excessive air velocities in the vicinity of the delivery on a sheetfed press can create serious problems with respect to the action of the jogger, particularly where extremely light paper is used.

After making suitable tests, it was found that an air velocity of approximately 50 f.p.m. in front of the intake duct was well within the safe

Fig. 1—Diagram shows principle of spray dust removal and clean heated air return to pressroom at Kingsport (Tenn.) Press.

Fig. 2—Type of hood installation in sheetfed rotary pressroom.

Fig. 3—View shows pickup and return duct system in sheetfed pressroom.

Fig. 4—Drop curtains on flatbed presses may be lifted out of way by pressman when working on delivery.

*Summary of address given before Research and Engineering Council meeting, Des Moines, Ia., May 1961.

limit necessary to keep the dust particles entrained.

The second step was to design a suitable collection system that would permit the creation of proper air velocities within the desired area and not interfere with normal operation of the press. Slotted ducts were tried at many locations around the delivery without success, because air velocities of 50 f.p.m. near the pile prevented the sheet from falling naturally.

It was also observed during these tests that the pump-like action of the gripper bar threw the dust away from the pile into the aisle.

Side Frame Enclosure

In this particular case, the rotary presses that were being equipped have a side frame enclosure at the top of the delivery. By placing a sheet of plywood across the top of the delivery, it was possible to confine the dust within the limits of the side frames, the top of the pile, and the sheet of plywood, at the same time taking advantage of the pump action of the gripper bar. The hood was then placed in the aisle at the edge of the delivery where it served to gather air from the general vicinity of the delivery and directly from the enclosures previously mentioned.

By adjusting the fan speed on the prototype until an air velocity of approximately 50 f.p.m. was achieved at the level where the gripper bars throw the dust into the room, it was possible to collect the dust effectively. Under these conditions, calculations and measurements showed the air velocity at the face of the hood to be 100 f.p.m. This was taken as a design standard.

However, the system was equipped with adequate fan capacity to allow for more or less velocity by adjusting dampers in the ducts to each of the hoods. It is interesting to note that the confinement of the dust over the pile effectively reduced the total consumption of offset spray.

The flatbed presses which were to be equipped with the dust removal system were treated in the same manner. A plywood sheet was positioned over the delivery with the hood at the edge of the delivery over the aisle. Because there were no side

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NAPL to Face Challenge And Change at Convention

BEGINNING with talks on the challenges that face photo-lithography and ending with the well-received technical session, the 29th convention of the National Assn. of Photo-Lithographers will be held at the Hotel Commodore, New York, Sept. 27-30.

One feature of the convention will be a large exhibition of the latest equipment and supplies for photo-lithographers. The exhibition will be open from 9 a.m. to 9 p.m.,

MORGAN

STEVENS

Sept. 27-28, from 9 a.m. to 5 p.m., Sept. 29, and from 9 a.m. to 1 p.m. on Sept. 30.

President of the NAPL, J. Tom Morgan, Litho-Krome Co., Columbus, Ga., will call the convention to order and will present the keynote address entitled, *Meet the Challenge of Change*. Convention activities are being directed by William Stevens, executive vice president of the association.

World Premiere of Film

A Look at Photo-Lithography is the title of the film produced by Eastman Kodak Co., which will have its world premiere on Sept. 27.

Also on the program for the first convention day, Eugene B. Martens, Boro Offset Corp., New York, will discuss advantages of roll film, and E. A. Terhune, Sales Development Institute, Philadelphia, will present a new approach to selling.

Different aspects of equipment in lithography will be covered during the morning session on Sept. 28. *Business in 1970—The People vs. Equipment* is the topic of an address by Harry E. Brinkman, president, Education Council of the Graphic Arts. Other topics discussed during this session will be the pros and cons of leasing and causes of profit and loss.

Main theme of the afternoon session of the second day will be handling the photograph. Speakers on this subject include Glen Peterson, Peterson Color Laboratory, who will discuss processing and printing, and Charles Taylor, Litho-Krome Co., Columbus, Ga., who will explain his methods of obtaining the best value on paper from photographs and color separations.

The Web Offset Trend

The trend and challenge presented by web offset will be one of the topics on Sept. 29, presented by Charles W. Cook, Haynes Lithograph Co. Ink and the tricks of lithographers can play with it will be discussed by Walter Surgeon, General Printing Ink Div., Sun Chemical Corp. Walter E. Soderstrom, NAPL consultant, will examine the relationship of labor, management and customers; and camera problem solutions will be outlined by J. M. Centa of Du Pont.

One of the main features of the convention will be the technical session held all day on Sept. 30. Panel members and their areas are as follows: John L. Kronenberg, S. D. Warren Co., moderator; Philip Quartararo, Kipe Offset Process Co., camera; Louis Federmack, Barnes Press, platemaking; Peter Rice, Capricorn Litho Co., press.

Also, Vincent Subenski, Seaboard Printing Inks, ink; Harry Baldwin, Champion Paper & Fibre Co., paper; and Michael Bruno, Lithographic Technical Foundation, technical.

Illinois Conference Plans

New processes is the topic of a new session added to the program of the Illinois Newspaper Mechanical Conference to be held in the Sheraton Towers, Chicago, Sept. 23-24. Other sessions will be devoted to subjects of interest to all mechanical departments.

Members of Printing Industry of Pittsburgh's convention steering committee are shown in a planning session at their headquarters. Seated, left to right, are: Arthur Gratz, finance; Clarence McIndoe, president of PIP; Harry Fritz, general chairman; H. Ralph Hernley, treasurer, and Harry Gardner, entertainment. Standing are Thomas McCabe, Jr., PIP executive director, and Carl Cummings, public relations.

PIA Convention to Study Management and Production

THE role printing industry management should play in the remaining years of the 1960s will be the principal theme of the 75th annual convention of Printing Industry of America when it convenes at Pittsburgh Hilton Hotel, Pittsburgh, Oct. 9-14.

EHRENBERG

Trends of printing in recent years and in the future, the importance of marketing and sales, executive tools and manpower relations are topics included on the program. Another feature is the two day Production Institute that was introduced successfully last year.

The exhibition of printing equipment and supplies to be sponsored by the Printing Industry Education Exhibition Corp. has been cancelled.

Approximately 1000 printers are expected to attend the convention. Francis N. Ehrenberg, PIA president, will report at the opening session on his 25,000 mile trip this past year to U. S. and Canadian cities.

The last two days of the convention, Oct. 13-14, will be devoted to the Production Institute. On Oct. 13, the Institute will consider production management topics with the general theme being *Better Production for Better Profits*. The program will be under supervision of Grant Herman, Kable Printing Co., Mount Morris, Ill.

Among the specific topics for the first day of the Institute are the role of the supervisor in motivating workers, scheduling and production control, improved methods, production standards and a series of case histories which reflect ideas for reducing production costs.

On Oct. 14, the Institute will consist of technical sessions. In the morning, a panel of technicians will discuss problems related to equipment and production. There will be a question and answer period. In the afternoon, four concurrent seminars will be held on lithographic, letterpress, bindery and composing room operations.

A Look at Trends

An interpretation of trends in printing to aid long and short range planning will be presented during the afternoon session, Oct. 9. Included will be views on changes in the traditional markets of printers and lithographers.

On Oct. 10, the morning program will begin with the Miller Self-Advertising Awards breakfast, during which Bennies and other prizes will be presented to winners of the PIA Self-Advertising Contest. The remainder of the session will be devoted to discussions of effective marketing and sales.

Special Manpower Session

One of the features of the convention is the special manpower session to be held Oct. 12. Principal speaker of the session will be George S. Odiorne, professor, University of Michigan, who will tell printers how to get maximum benefit by properly motivating, communicating with and supervising employees. Case histories of manpower relations in three plants will be analyzed.

The afternoon of Oct. 12 will be devoted to individual meetings of various PIA section groups, including: the Small Printers, Rotary Business Forms, Graphic Arts Equipment Supply Dealers, Looseleaf Division of the Trade Binders, and Ticket and Coupon Printers.

Three sessions will be held by the MPS and the UES. Both of these groups will meet on Oct. 10 in the afternoon and all day on Oct. 11.

PIA Starts Loose Leaf Div.

Printing Industry of America has announced plans to expand its member services by inaugurating a Loose Leaf Div. within the Trade Binders Section. Preliminary steps have been taken to initiate this division because of the numerous problems of a specialized nature that face this segment of the industry. The first official meeting of the division is scheduled for Oct. 12-13, during PIA's Diamond Jubilee Convention in Pittsburgh.

Dealers to Hold Meeting

The Graphic Arts Equipment and Supply Dealers Section of Printing Industry of America will hold a general meeting at the Pittsburgh Hilton hotel on Oct. 12.

In addition to a general discussion session, a report on the first ratio study will be presented.

GOSS BACKSTAGE -
problem-solver helps create more
"LETTER CHANGE FOR MATERIAL ONLY"
GRIND OFF OF STK. TO UP ONLY

nore, exacting presses

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SC=.57*((SCN/SCD)**.5)
IF(F)27,28,28
27PRINT,AP,FI(J),F,SC,K
GO TO 29
28PRINT,AP,FI(J),F,K,SC
29IF(AP-A2)30,99,99
30AP=AP+DEL
GO TO 23
END
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Right you are—this Goss backstage scene is a Data Processing operation! Goss engineers use it to conserve time and talent for maximum creative work, but mainly to achieve utmost thoroughness and accuracy in design calculations. This electronic problem-solver helps build finer presses in many ways.

Here's one example—the cycloidal cam* on folding cylinders on Headliner® newspaper presses. It's the preciseness of cam action that determines folder efficiency. With the help of the *electronic computer*, Goss designers were able to perfect the cam path or channel shape along every *two degrees* of its entire working radius (they measure in half-degree increments when necessary). And they do these calculations in minutes while ordinary procedure might take days and weeks—or they may even be shunned as impractical.

Extraordinary engineering standards assure the extraordinary performance you get from Goss presses—the Headliners, Mark I or Mark II—Suburban® or Urbanite—from any equipment you choose in the Goss complete line—letterpress, offset, or rotogravure.

Another reason why you should contact Goss.

THE GOSS COMPANY
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Specialists in newspaper, magazine and roto presses

A DIVISION OF MIEHLE-GOSS-DEXTER, INC.
The leader in graphic arts...engineering, service and manufacturing...industry-wide and world-wide

*Goss cycloidal folding cylinder cam with action perfected at every two degrees of its entire working radius.

By **DALE WAUGH,** *Manager*
of Belt Engineering, Dayco Corporation

Watch Your V-BELT *Maintenance*

Prying a V-belt over the pulley invites trouble by breaking one or more of the cords. Proper way: Loosen motor mounting screws, slide motor forward so belt can be dropped into pulley groove.

REPLACING worn V-belts *before* they fail may seem wasteful, but an overwhelming majority of printing plants are convinced this, and other preventive maintenance procedures, pay off in the long run.

In a recent survey more than two-thirds of the answering firms reported V-belts rated high in preventive maintenance checks. Some companies reported, tongue in cheek, that V-belts were taken for granted and are overlooked in regular preventive maintenance checks. Significantly, of the firms with a regular preventive maintenance program, only 5% said they would run equipment until the belt failed. Yet in shops with no regular preventive maintenance program, as high as 40% reported they never replaced V-belts until the drive failed.

There is false economy in this approach. The cost of a new V-belt is nominal but the ensuing down time for a piece of equipment can be extremely costly. This is particularly true when a replacement V-belt must be secured from an out-of-town source (the survey showed it took from a few minutes to as long as three weeks to secure and install replacement V-belts).

While down time can gnaw away at profits, it can also strain customer relations, crowd deadlines and upset production schedules.

One of the firms surveyed admitted that "like most, we just try to get by." Significantly, this company has no preventive maintenance program and runs belts until they fail. Another company says it runs belts until they break because their source of supply is only a block away. But what happens when a belt fails in the middle of the night on a rush job?

V-belts are dependable and afford a number of advantages in power transmission. V-belt preventive maintenance is relatively easy. V-belts and sheaves (grooved pulleys) wear gradually and give advance warning when periodic adjustments are required.

Visual Inspection

Simple periodic inspection is advantageous in detecting V-belt drive wear. Just look at the drive and listen. The characteristic ticking or slapping sound of a belt rubbing against an obstruction is a warning of approaching trouble.

The flexibility of a V-belt drive

permits a degree of sheave misalignment. However, misalignment causes rapid wear and prevents V-belts from delivering the long service expected from them. Usually, sheaves are out of line when the motor and driven shaft are not parallel.

Possibly the best way to check for misalignment is to use a straight edge between the face of one sheave and the face of the other. Another way to check alignment is simply to sight across the edge of a sheave groove in line with the belt. Any harmful misalignment will show up as a bend in the top surface of the belt where it travels away from the pulley groove.

Replacing Worn Belts

All belts and sheaves wear somewhat after they have been in use for a time. As this wear occurs, the belts ride lower in the grooves. Since the center distance has to be increased to compensate, a worn belt is, in effect, longer than a new one.

Most printing presses and printing plant air compressors are driven by heavy duty multiple belt drives. Consequently, rather than replace a single belt, the entire drive should be replaced with a new matched set. If only the broken belt is replaced, the new belt will carry the greater part of the load because it is shorter. Obviously, such overloading will shorten the life of the new belt. It may seem wasteful to replace all belts in a multiple drive just because one belt fails, but it pays off in increased efficiency and longer belt life.

Mismatched V-belts usually show up when identical belts are secured from different sources of supply or at different times. All V-belts contain cord and fabric. Extremes in temperature and humidity can cause belt length to vary. All matched sets should be purchased together and stored as a unit.

When looking for a possible mismatched set of belts on a drive that is running, always look for sagging belts on the tight side of the drive—that is the side on which the belts are approaching the motor. If they are even on this side, and reasonably even on the slack side, then you can be sure all belts are pulling their share of the load.

Simple precautions during storage will assure dependable V-belt performance when it is installed. A cool, dry place is best. If belts are piled on damp floors, or stored near radiators, undue shrinkage or deterioration may occur.

V-belts receive their tremendous pulling power from the wedging action of the belt in the pulley groove. Belts which are too loose cause slippage, loss of power, loss of speed, rapid belt and sheave wear and possible belt squeal or howl. A squealing drive signals slippage which may be caused by a loose belt or too heavy a load.

A word of caution: Never try to correct slippage by applying belt dressing. Most dressings contain chemicals which tend to soften V-belts. While this softening process actually does increase the friction between the belt and sheave walls, the result is only temporary and certain types of belt dressings eventually cause deterioration and greatly shorten belt life.

Belts which are too tight cause rapid wear on the sheave, bearings, and the belt itself. Fiddle-string tight or sloppy loose belts can cause plenty of trouble. A properly tensioned belt will feel springy to the touch.

When a V-belt is under proper tension in a sheave groove, the wedging action between the belt and sheave groove sidewalls produces a vise-like pressure. This gripping principle explains why extreme belt tension is unnecessary. Overtension, of course, causes accelerated wear in all elements of the drive. Undertension prevents the belt from gripping sheave sidewalls with a corresponding loss of efficiency.

Effects of Sheave Wear

The gripping principle employed in V-belt drives, as stated above, emphasizes the importance of keeping sheave sidewalls perfectly straight. When the walls are worn

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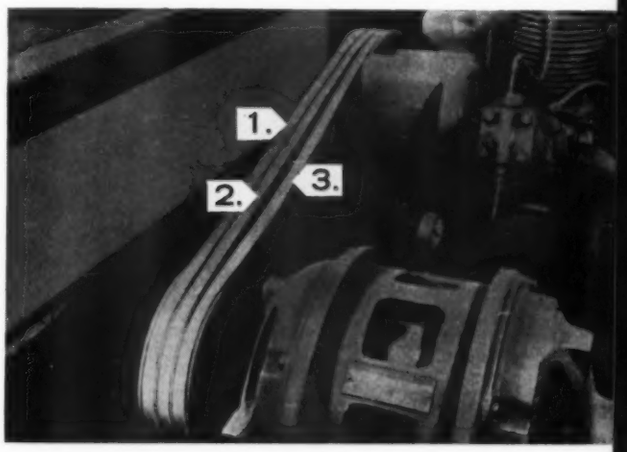
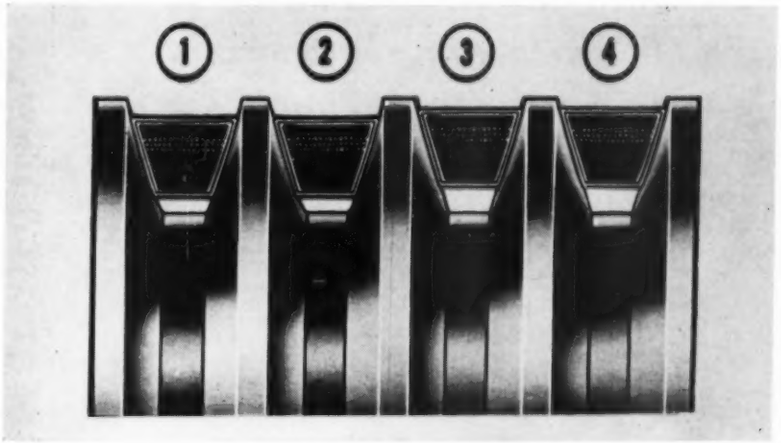


These belts are new but have been mismatched. Nos. 1 and 2 carry the load while No. 3 gets a free ride. Factory matched sets should be stored together in the plant and installed together.



Check pulley groove taper width when installing a new set of V-belts in a multiple groove sheave. Note grooves Nos. 1 and 2 in comparison with Nos. 3 and 4 above.

Production Control in a Business Forms Plant

St. Louis firm replaces old production peg board with its own originally designed control system

By MILDRED WEILER
St. Louis Correspondent

HOW an idea for a business forms system is developed and put into use is graphically illustrated by Stephens Business Forms, a St. Louis company which designed and uses a system to govern its own production control procedures. With the aid of such a system the comparatively young company, founded in 1952, has built a better than $\$1\frac{1}{2}$ million annual volume in the business forms field.

For years the company used a traditional peg board production control system. According to Robert F. Jehle, president, that system required too much supervision in changing pegs on the board and if one mistake was made the whole system was thrown off.

An eight-part printed form, which now replaces the peg board, incorporates some ideas used in the previous system and adds a few new items to make it not only efficient and practical for the business forms printer but for use by other printers as well.

With the eight-part form all typing for the job is done just once. Information is distributed to the various departments simultaneously. The system eliminates posting, provides record information for billing and inventory control, and aids in figuring salesmen's commissions.

While parts of the $8\frac{1}{2}$ in. by $11\frac{1}{4}$ in. form may be in use in some other systems, the combined package is believed to be new. Two short forms which Stephens added are intended to carry the system four steps farther in providing a record at the president's desk, giving information to compute salesmen's commissions, giving data to the platemaking department and providing a cross reference file by customer name.

How Forms System Works

Here is how the eight-part production control system works: A handwritten order, edited by the supervisor, goes to the typist who copies all information at one time onto the eight-part set.

The Part 1 copy is pasted to a job envelope containing all material for the job such as copy and cuts. A strip across the top of Part 1, which contains information for machine loading, etc., is torn from the form. This strip, together with Part 3 of the form becomes the Kardex file copy at the production control desk.

Part 2 is the customer's acknowledgment which reaches him earlier because of the system. Certain information on this form is eliminated by spot carbonizing. The customer's copy is the only one which contains a special message of thanks and the company's name and address.

Part 3 is the schedule copy which, with the strip from Part 1, is placed in the Kardex file under the schedule date. A tab marking system is used in the file. Because the company frequently has several jobs for each customer in the plant at one time, it also keeps a cross file by the customer's name (provided by one portion of Part 8). This helps to locate the job in the Kardex file which is by job number.

Part 4 is the cost file copy which contains all mechanical hours. This copy goes to the file clerk in the cost department who starts a file by job number and as each time ticket comes in, along with bills for the job, puts them all into the file. When the job is finished the entire package is pulled for billing.

The superintendent's copy is Part 5. It is kept on file in the plant and used by the plant superintendent to order any nonstandard materials such as special inks and special punch sizes. All billing information is blocked out on this form.

Part 6 is the salesman's copy.

The two short forms added at the end of the eight-part set are perforated so that each can be torn in half. The left hand side of Part 7 is torn off and filed by salesman's name. This portion contains data from which the salesman's commission is computed each month. The right hand portion of Part 7 is filed by customer's name and becomes the cross reference file to locate orders listed in the Kardex system by job number only.

Billing record information showing shipping dates is contained in the left hand side of Part 8. Jehle keeps this portion of the form at his desk, filed by order number. The file is a check for him. As soon as the invoice is sent out he destroys his file ticket.

This file also gives Jehle information on the amount of billing back log. He can tell at a glance the volume of billing on the books at all times.

Right hand side of Part 8 is sent to the platemaking department. This gives the platemaker the opportunity to schedule his work in proper sequence.

Material Cost Sheet

Along with each order the company designed and uses a material cost sheet which also serves as a material order form. In four parts, the material cost is estimated on all four sheets but blocked out on the last two forms.

The second sheet goes to the cost department to check supplier invoices, while the last two sheets go to the materials handling department. Inventory and usage of material are recorded on one sheet. Another part of the form is sent back to the office for inventory control. The second sheet contains the same information as to materials used. This sheet goes to the cost clerk.

The all letterpress plant was recently expanded another 10,000 sq. ft. by taking over the former office space. A 2500 sq. ft. second floor was added to the brick building in the downtown area for office and sales rooms.

The plant operates on a two shift basis in most departments with three shifts in the pressroom. The company, which has 28 to 30 employees in the plant, a staff of six salesmen, seven clerical workers and supervisory personnel, processes an average of 125 jobs a month. Finished jobs are filed by envelope job number with a duplicate copy of the order on file in a customer's binder. Salesmen have access to the customer's binder which shows all the work done for a customer in a year.

One Webendorfer 17 in. press, a two color 17 in. Ashton rotary press and a 22 in. Ashton rotary comprise the plant's press equipment. By use of split fountains four color jobs can be produced. ⊕

A copy of the eight-part form used to record job data at Stephens Business Forms. The form serves as a production control system in the St. Louis firm.

UNIT PRICE XXX. XX LOT M BK | ADD CHGES. – SPEC. BILL. INST. | BINDERY: TIP | PCH. 1.5 | BOOK | FOLD | LINK | STATUS E 5096

EST. GROSS BILLINGS XXX. XX | EST. GROSS MARGIN XXX. XX | PRESS 6.1 | COLL. 2.1 | CUT | TOT. BIND 1.5 | CUSTOMER A.B.C. MFG. CO. | DELV. DATE 7-14-61

QUANTITY 2,700 | NO. PTS. 1 | FORM NAME AND NUMBER PURCHASE ORDER | F.O.B. FACTORY ST. LOUIS, MO. | OUTSIDE SERVICE P.O. E 5096

COLLECT | PREPAID ☒ | FRT. ALLOWED ☒ | FRT. NOT ALLOWED | SHIP VIA TOP EXPRESS | SPEC. LABELS | CUTS: FURN. MAKE KEEP RET'N. | NO. OF PLATES 2 | PAPER P. O.

SHIP TO: SAME

SPECIAL COMPOSITION INSTRUCTIONS

BILL TO: A.B.C. MANUFACTURING CO. 2035 BLACKWELL BLVD. ST. LOUIS, MISSOURI

CUST. P.O. NUMBER 9320 | SPEC. SHIPPING INSTR. | FORM NAME & NO. PURCHASE ORDER | SET A | HORZ. SPACING 10ths | VERT. 6ths | MACH. TYPEWRITER | DATE ENTERED 7-7-61 | DELIVERY SCHEDULED FOR 7-14-61 | DUMMY | SEND TO: | PROOF

SALESMAN V. CARTER | DEALER | CODE | OLD ORDER NO: E 4656

RUN 2 UP ON #1 OR #2 PRESS — PRESS DEPARTMENT INSTRUCTIONS — SEQ: 1-2-5-3-4-6-7

FT	STUB SIZE	POS.	LENGTH	WIDTH	SUB. WT.	COL.	GRADE	RUN SIZE	INK COLOR FACE	INK COLOR BACK	BO	MARGINAL WORDS COLOR BLK.
1	*1½	T	N 34	8½	15	GR	REG.	12¾	BLK.	DK. GRAY		(NONE)
2	*	"	"	"	"	WH	"	"	"	"		ACKNOWL. & ACCEPTANCE
3	3/4	"	"	"	"	BL	"	"	"	"		PURCHASING CONTROL
4	"	"	"	"	"	SA	"	"	"	NONE		EXTRA COPY
5	"	"	"	"	"	PK	"	"	"	"		ACCOUNTING CONTROL
6	"	"	"	"	"	CY	"	"	"	"	☒	REC. REPORT - PURCH.
7	"	"	"	"	"	GN	"	"	"	"	☒	REC. REPORT - ACCT. PAY.
8												
9												
10												
11	*NOTE: 1½ STUB ON PTS. 1 & 2 ONLY.											
12												

STARTING NUMBER 101 (up) | COLOR RED | SPECIAL NUMBERING | EXTRA PERF. PARALLEL TO STUB | EXTRA PERF. PERPENDICULAR TO STUB

NO. OF HOLES 3 | SIZE 1/4 | KIND RH ☒ VS SH | POSITION LEFT | CENTER TO CENTER 4 1/4 | EDGE PAPER TO EDGE HOLE 1/4 | PARTS PUNCHED ALL (IN BINDERY)

SPECIAL PRESS INSTRUCTIONS

RUN | UP ON #2 | COLLATOR — COLLATING AND BINDERY DEPARTMENT INSTRUCTIONS

UNITS	POSITION	SIZE	CARBON NO.	CLEAR EDGE – SPECIAL	P.O. NO
6		10 3/4	STK. #15	5/16 CERCD.	STOCK

SPOT GLUE BETWEEN | GIN GLUE BETWEEN PTS. 5 & 6 IN STUB | CUT OFF 8½ | POS. OF PTS. CENTER | ☒ VOID SPOILED NUMBERS ☒ LIST MISSING NUMBERS MAKE UP SPOILED NOS. | BOOKS PTS. PLAIN | KIND STOCK | SETS/BK

SPECIAL INSTRUCTIONS

BOX BAND ☒ LOOSE | CONTAINER A | QTY. PER BOX/BAND

JOB ENVELOPE

Pittsburgh Craftsmen attending the Chicago convention promoted the 1962 convention to be held in their city. Left to right are: Ken Chapin, Ketchum, MacLeod & Grove; Ben Albitz, Mor-Craft Company; Frank Rastetter, Artcraft Engravers of Pittsburgh; Ned Evans, Miller Printing Machinery Co.; Fred P. Egloff, retired, formerly of Universal Engraving Co.

Typographers Urge Use Of All Layout Principles

THE typographic clinic held during the Craftsmen's convention in Chicago last month was concerned with the important areas of layout, composing room operation and phototypesetting and composition.

Among the comments made by Moderator Howard N. King was one that served as the keynote for discussion: "We who strive to furnish layout design must try to express the design in typography rather than just by personal preference."

Charles Felten, general press manager, *Messenger of the Sacred Heart*, New York, speaking on *Layout and Typography*, asserted that: "All printing is made to promote the sale of something."

Felten said the best layout is one in which there is a predominant contrast element. Rhythm in layout is important to permit uninterrupted reading. Unity is essential to the separation and coordination of white space and type elements.

Felten advised that no job is too small to have typographic layout treatment—even the simplest job. The current trend in typography is toward simplicity of layout. In this connection, the layout man should think in terms of the complete job.

A. R. Tommasini, superintendent, University of California Press, Berkeley, said there can be no such thing as a general procedure for all composing rooms because each one operates under entirely different conditions and each has problems that the others do not. A study of procedures may well lead to elimination of many wasteful procedures.

The speaker declared, "Human factors don't quite accommodate themselves to reduction to mathematical formulae or lend themselves to accurate analysis. Neither the layout of a composing room nor its procedures can be reduced to an ideal. Each must be designed for the particular type of work turned out by a given shop.

"The best we can hope for is to adopt some broad general principles that will enable us to work out methods that will simplify the distribution and handling of the work, eliminate confusion, reduce the possibility of error and avoid lost motion."

Tommasini continued: "In a composing room each handling of type costs money. Resetting lines, inserting corrections, correcting and respacing handset type, rechecking proofs, remakeup—all of these take time, costing on an average of 20c a manminute.

"In order to utilize the best equipment, preplanning and production control are necessary. One of the greatest problems is the condition of the manuscript copy. Good, clean, double spaced typewritten copy, well edited and properly marked for typesetting will pay big dividends."

Mark Up of Copy

One of the important operations is the preparation of a layout and the marking of copy with respect to type faces, point sizes and leading—all keyed properly to the layout. He stressed that copy and illustration areas must be clear and exact so that the artist, typographer, photoengraver or platemaker will know the precise limitations within which their work must be done.

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At the Craftsmen's typographic clinic last month, the speaking panel consisted of, left to right: Charles J. Felten, general press manager, *Messenger of the Sacred Heart*, New York City; A. R. Tommasini, superintendent, University of California Press, Berkeley, Calif.; Howard N. King, moderator; Dr. R. Hunter Middleton, typeface design director, Ludlow Typograph Co.; Burton Cherry, Burton Cherry Associates, Chicago.

Quality Control Methods Coming Fast for Offset

THE offset-lithographic clinic was divided into two sections at the International Craftsmen's convention in Chicago last month. The first section was called *Offset Panorama* and the second was devoted to the subject of web offset.

J. Tom Morgan, president, Litho Krome Co., Columbus, Ga., led off with the subject: *A New Approach to Black and White and Color.*

The speaker said that in black and white rendition offset lithography too long has been known as the gray medium. It is obvious that black and white lithography at its best cannot even approach really good letterpress, much less compare favorably with gravure. "The quality minded lithographer can find the answer in utilizing the tools and techniques which science has provided," he said.

Two Impression Printing

To demonstrate the idea, Morgan exhibited specimens of pictorial printing done with one impression contrasted with the same subject printed two impressions once through a two color press, with two different plates.

The speaker explained: "Since our particular production presses are of two-unit construction, it should be the natural procedure to use both units whenever possible, even when printing black and white. So, this scientific advantage is made use of by putting black ink in both units and laying down two impressions as each sheet passes through the press."

Morgan said the two different 133 line screen black plates were made at 30 deg. angles apart. One plate carried the high key portion of the picture and the other plate carried the shadow.

A scientific instrument is used to read a control spot on the back edge of each sheet. As much ink can be carried as can be transferred without offsetting or filling. The result will give the depth of a fine glossy photograph, or a maximum density of 1.85 to 2.00.

Morgan gave full credit to manufacturers for improving inks that will travel and trap and dry, under two-impression black printing.

He exhibited the same subject printed by the double impression technique upon five different paper stocks—coated, cast-coated, regular offset and two fancy finishes.

During the latter part of his address, Morgan described the Litho Krome color control chart. He said the chart was developed solely as a quality control instrument for use in his plant and Litho Krome does not sell it.

In reality, there are three sets of color charts. There is one set for each of the three basic types of paper used in lithography: (1) A chart for regular offset or noncoated paper, (2) One for coated or enamel paper, and (3) One for Kromekote or cast coated paper.

Morgan explained that a job data sheet is prepared by a technician through use of the chart. This can be compared to a blue print before operations begin. Each tone value is represented by a code number for each of the three colors before reproduction begins. In other words, color is evaluated numerically by numbers rather than percentages. He asserted the numbering system eliminates much of the misunderstanding about color and tone values.

Offset Paper Developments

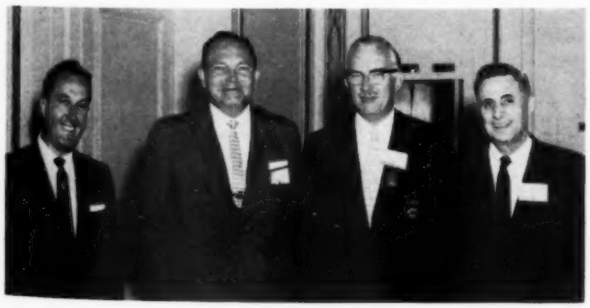
Harry R. Baldwin, supervisor of printing sales service, Champion Paper & Fibre Co., spoke enthusiastically about *Developments in Offset Papers.*

"The lithographer today can choose from an almost unlimited variety of uncoated papers in many different types of finishes, colors and brightness," the speaker said.

"In coated papers, coated one side litho labels have been improved to give better print quality, better gloss ink and varnish holdout and better performance, not only in the offset pressroom but also in subsequent labeling operations.

"Coated two sides offset papers are now produced in a variety of weights, grades and price ranges on many different types of coating equipment. . . . Improvements that have been made in on-the-machine coaters have lowered the costs of many grades and have enabled the mills to produce lighter weights of offset coated paper."

Baldwin commented that the in-



Offset Panorama speakers at the Craftsmen convention were, left to right: C. R. Williams, Densichron Div., Welch Scientific Co., Chicago; Harry R. Baldwin, Champion Papers, Inc., Hamilton, O.; Thomas P. Mahoney, moderator, Inland Lithograph Co., Chicago; J. Tom Morgan, Litho Krome, Inc., Columbus, Ga.

Web offset speakers were, left to right: Richard Dunbar, Inland-Magill-Weinsheimer Corp., Lincolnwood, Ill.; Thomas P. Mahoney, moderator, Inland Lithograph Co., Chicago; Gilbert W. Bassett, Miehle Company, Div. of Miehle-Goss-Dexter, Chicago; Ben Offen, B. Offen & Co., Chicago. (See page 47 for report on Dunbar's remarks.)

crease in the number and variety of both coated and uncoated offset papers was not accomplished overnight. Considerable research work had to be done by the mills to devise better pulping methods. Better methods of sizing, both internal and surface, were developed.

Baldwin reported that the consumption of fine printing papers for web offset already amounts to about 10% of the total demand. Of this web offset tonnage (which is exclusive of newsprint) about 54% is coated paper.

According to the speaker, papermakers have available for the web offset printer coated papers in a fairly wide range of weights and finishes that have been especially designed for the process.

He also said: "We have seen multicolor web offset presses run as long as six or eight hours without being forced to shut down for cleanups."

An address on web offset's place in the printing industry was presented by Gilbert W. Bassett, sales manager, Miehle Company, Div. of Miehle-Goss-Dexter, Inc. Bassett pointed out the specific types of work which can be executed advantageously on web offset presses as well as the kinds of work for which the process is not suited.

"Web offset," he said, "is not the cure-all for all of the problems of the printing industry. Obviously, web offset is not going to fit into all the 30,000 odd printing plants . . . in this country. In fact, it is fairly safe to assume that there are probably not more than 300 plants in the entire United States that could successfully utilize web offset presses—other than forms presses. Web offset is not going to replace sheetfed printing."

Regarding work which did not seem to be suitable for printing by web offset, Bassett said he did not know of anyone running commercially acceptable labels on a continuous basis. In this category he included carton printing and greeting cards. He knows of no one that is running maps by web offset although he understands it has been

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HAS YOUR "HOT METAL" HAD A CHECK UP LATELY?
A periodic free "lab" check-up of your working supply of "hot metal" leads to efficient operation. Imperial's Plus Metal Plan provides a low-cost positive system to keep your metal in proper working balance. In the interest of better printing may we prove this to you?
Imperial
IMPERIAL TYPE METAL COMPANY
CHICAGO 50 NEW YORK 7 PHILADELPHIA 34
For More Information Circle 100 on Reader Service Card

New Public Relations Head

One of the important posts in International Craftsmen circles changed hands last month with the appointment of a new public rela-

TAYLOR

LARSON

tions commission by President Michael Imperial.

Warren Taylor, manager, Heidelberg Southern, Inc., Atlanta, Ga., has been named to succeed Floyd C. Larson who has held the office for five years. Larson is executive secretary of the International Assn. of Electrotypers and Stereotypers with headquarters in Cleveland.

Ever cheerful in response to the many requests for material, Larson did his job well throughout the five-year period in which he handled the public relations duties.

Russia Uses Zinc In Type Metal

A type metal alloy which is said to give longer wear and be less detrimental to employee health than conventional alloys has been developed and tested in the Soviet Union.

Consisting of 94% zinc, 4% aluminum and 2% magnesium, the alloy has been used to print *Iswestija* since 1955. (*Iswestija* is the official organ of the U.S.S.R. and has a circulation of 1.6 million.)

Advantages claimed for the zinc alloy include longer wear, low specific gravity and low cost. Another important feature of the alloy is that it is less detrimental to health since the zinc oxide level found in the air during casting and recasting is well below the permissible level.

However, due to the high melting range (644 deg. to 685 deg. F.) and greater hardness of the new alloy, alterations are necessary in composing and casting machines before its adoption. The pot, the pot mouth and the mold must be made of another metal and the mechanism handling the slugs also need modification. A slug cast from the new material shows considerable shrinkage during cooling.

Modification of the mold makes it possible to cast smooth slugs without any ribs. After the initial difficulties were overcome, compositors and printers at *Investija* were reported to express satisfaction.

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British printers were attacked for having no sense of design and for bad layout of classified ad pages at the Newspaper Society's Ninth Newspaper Advertising Conference held recently.

G. M. Lloyd Williams, director of the Direct Mail Group, said that design and layout cannot be left to most printers in England today if a client wants the job to look good. Another speaker criticized printers for bad layout of classified ad pages in newspapers. The importance of classified advertising was stressed by speaker, Victor Bidolph, advertising manager of the Wolverhampton *Express and Star*. He said local newspapers must develop classified advertising to compensate for their falling share of national advertising.

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The eleventh International Printing Machinery & Allied Trades' Exhibition will occupy both the Olympia and Earls Court exhibition buildings when it is held in London, July 16-27, 1963. The expansion was made necessary by increased interest from all branches of the printing industry. It is claimed that the 1963 IPEX show will be the largest printing exhibition ever held with a total floor area of close to 1 million sq. ft., and an exhibit area of 500 thousand sq. ft.

⊙ ⊙ ⊙

An appeal for more apprentices has been made by the Engravers' Section of the West German Master Printers' Assn. According to reports, 42% of all apprenticeships are unfilled. Members were asked to fill the vacancies as soon as possible.

In order to enable apprentices to receive instruction in vocational physics and chemistry, it has been suggested that the section organize special courses in all centers of process engraving. In addition, it is hoped that the Process Engraving School in Stuttgart, Germany, will organize special courses for skilled operators.

In England, more money is invested in capital equipment per student in printing trade education than for students in any other type of trade education. This was reported by Samuel M. Burt, managing director of the Education Council of the Graphic Arts Industry, after his recent study of printing education in England. He visited seven technical colleges and met with that country's education leaders.

⊙ ⊙ ⊙

Increased interest in an international ROP color cooperation was reported at the second meeting of the International Newspaper Color Assn. held recently in Brussels, Belgium. Several important newspapers from the United States, Canada, France, Italy, Great Britain and Switzerland have expressed interest in the organization. Information may be obtained from INCA-Secretariat, c/o Axel Springer & Sohn, Kaiser-Wilhelm Str. 6, Hamburg 36, Germany.

⊙ ⊙ ⊙

Interchemical Corporation, printing ink and chemicals producer, has entered the European Common Market, it was announced by Herbert B. Woodman, president. Interchemical has acquired controlling interest at Lafleche Fils, S.A. The Franch company is an ink producer with plants located in the Paris area. Lindsay C. Herkness, Jr., president of Interchemical-Europe, S.A., has been elected director general of Lafelche Fils, S.A. Bernard Lafleche continues as president.

German Manufacturer Visits Miehle – Hans Busch, director of sales for Faber & Schleicher Press Mfg., Offenbach, Germany, is shown with officials of the Miehle Company, Div. of Miehle-Goss-Dexter, Inc., after touring the Chicago factory on a recent visit. Left to right: Carl Mellick, executive vice president; G. W. Bassett, vice president of sales; Busch and J. W. Coultrap, president.

WHAT'S AHEAD FOR THE READER

Golfers will quickly recognize that par is something for them to shoot for, but our October issue will feature PAR as a production target at which printers should be shooting. Written by Printing Industry of America's top production trouble shooter, the story deals with using the PAR Production System more intelligently and appeals for more universal acceptance of this method of measuring production.

Next month, letterpress printers can read how one plant has dealt *A Blow to Press Makeready*. Details are given on a system for prepositioning and registering plates for color in the electrotype foundry before sending them to the pressroom.

There will be three informative features for newspaper plant readers: Details on the proposed expansion of the ANPA-RI research laboratories and what this will mean to the newspaper industry; description of safety devices utilized in one of the country's largest newspaper plants, and specifications on a device for automatically starting and stopping a composing room saw.

The October issue will also include stories on types of controls for web offset printing and a method for magnetic ink check imprinting. Read *Printing Production* regularly for reliable information on ways to run your department or plant.

Magazine Names Three to Staff

Rodney G. Brower has been named assistant editor, and Winslow Reither and John A. Bassett have been appointed representatives of PRINTING PRODUCTON magazine. The appointments were announced jointly by Edward H. Owen, editor, and Paul B. Holder, publisher.

Brower comes to PRINTING PRODUCTION from Florida where he had been associated with two weekly newspapers, the Delray Beach *News*, from 1957-59, and the Boca Raton *News*, from 1959-61. He graduated from Rochester Institute of Technology in 1957 with a Bachelor of Science degree in printing management. While at RIT, he served as editor of the RIT *Reporter*, at that time the school's semi-monthly newspaper. Also, as a student, Brower was elected to membership in Gamma Epsilon Tau, the national honor society for printing students.

BROWER

Prior to entering RIT, Brower attended Denison University in Granville, O., for two years and served in the U. S. Coast Guard for three years. He will be headquartered at the magazine's main offices in Cleveland, and represent PRINTING PRODUCTION at conventions and on special assignments.

Reither, former advertising sales manager for *Book Production* magazine, has joined PRINTING PRODUCTION as a representative in the Eastern territory. He will work out of the magazine's Eastern office at 310 E. 49th St., New York City.

REITHER

BASSETT

Bassett joins the PRINTING PRODUCTION advertising sales staff as the Southern California representative of the William A. Ayres Co. His headquarters will be 1709 W. 8th St., Los Angeles. ⊙

ANPA-RI Moves 1962 Conference

The city and dates of the 1962 Production Management Conference sponsored by the American Newspaper Publishers Assn. Research Institute have been changed to the new Sheraton Hotel, Philadelphia, June 11-13. The second annual web offset conference will be held at the same hotel on June 14.

Unexpected difficulties with the originally announced Montreal, Can., site caused the change in conference plans.

According to the announcement, the exhibit of equipment and supplies will be in two sections. Conventional exhibits will comprise one group, and web offset equipment along with related cold type and photocomposition equipment will be displayed in another wing.

National Paper Trade Assn. To Meet Oct. 22-25

The *Challenge of Change* is the theme of the National Paper Trade Assn. convention to be held at the Conrad Hilton Hotel, Chicago, Oct. 22-25.

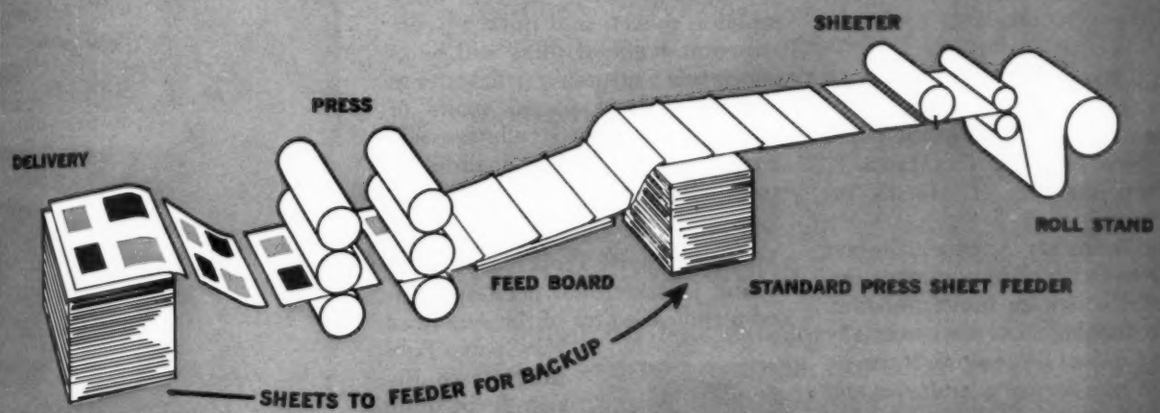
Center of the four day meeting will be the paper show in which 115 manufacturers and converters will display their lines. It will be open from noon to 6 p.m. Oct. 22-24 and from 9 a.m. to noon on Oct. 25.

On the afternoon, Oct. 23, a meeting of the alumni of the association's two Web Offset Printing Training Institutes is planned. During the meeting, experiences and problems of web offset will be discussed.

LTF Meetings Listed

A calendar of meetings of the Lithographic Technical Foundation has been released by William H. Weber, executive director. Meetings listed are: Executive Committee, Cumberland Mills, Me., Sept. 26; Executive Committee, New York, Dec. 5; Education Committee, Sheraton-Blackstone Hotel, Chicago, Mar. 19, 1962; Members Meeting, Sheraton-Blackstone Hotel, Chicago, Mar. 20, 1962; Directors, Sheraton-Blackstone Hotel, Chicago, Mar. 20, 1962, and Research Committee, Sheraton-Blackstone Hotel, Chicago, Mar. 21-22, 1962.

Can You Benefit from the Roll Economy and Sheet Flexibility of a Miehle Web/Sheet Feeder?



Perhaps you can cut paper costs by applying a Miehle Web/Sheet Feeder to your big Miehle press—offset or letterpress rotary.

The Miehle Web/Sheet Feeder automatically unwinds and decurls roll stock of suitable widths, cuts it to exact sheet length and forwards the sheets down the feedboard of the press for registering and in-feeding in the normal way.

The operation is simple—size flexibility is maintained—and the savings can be considerable. The work must be run grain short, of course.

But even on offset that's not necessarily a problem. We've investigated the subject thoroughly and made extensive tests...with the help of some adventurous lithographers. As a result there's now a Web/Sheet Feeder on a big Miehle 54/77 Offset in New York, running just about all kinds of work successfully.

Keep in mind, too, that the Miehle Web/Sheet Feeder does not replace the regular Dexter pile or Christensen continuous feeder on the press...it *supplements* it. The regular feeder is used for backing up the sheets—or for those jobs where roll stock is not practical.

Running paper in rolls could save you considerable money—probably increase production, too. Why not check with your Miehle representative to see if a Miehle Web/Sheet Feeder fits into your operation?

THE MIEHLE COMPANY
Division of Miehle—Goss—Dexter, Inc.
Chicago 8, Illinois

For More Information Circle 127 on Reader Service Card

Mead Explores Exotic Papers

EXOTIC papers made of such things as nylon, glass, silver and lead are being produced, tested and marketed for special purposes by Mead Corporation. The work is carried on at Mead's new $4.5 million research center in Chillicothe, O.

The papers are produced on paper machines which are identical in principle to those which make ordinary paper. The main difference is that the machines are smaller because the demand is less.

Unlike conventional paper which is usually sold by the ton, exotic papers are sold by the square foot or by the pound. Some cost as much as $420 per lb.; others $1 per sq. ft.

Exotic Paper Uses

A number of uses of exotic paper have been listed by Dr. Hanns F. Arledter, director of Mead's research:

Fibrillating acrylic paper, the first cousin to Orlon or Acrilan sweaters, is useful where an insect resistant, grease resistant and dimensionally stable product is required. It can be used in transformers, laminates and printed circuits.

Glass paper is used as a barrier to protect personnel in atomic energy installations or as a bacterial filter in hospital laboratories. Only one out of 500 million bacteria will pass through it, according to one technical study.

Ceramic papers have a myriad of uses. They are used in furnaces, welding and make an efficient material in the tailpipes of jet planes because they can withstand a temperature of 2,500 deg. F. They could also be used to filter fly ash from industrial smokestacks.

A variety of flameproof papers made of asbestos, glass and other non-flammable materials serve well in wallpaper, lamp shades, television sets and laminates.

Teflon paper, which is under development, can be boiled in sulfuric acid or caustic soda without harm; it could be used where extreme acidity or alkalinity prevail.

Aluminum papers, one of which consists of 94% aluminum and the other 100% aluminum, also under development, makes a fine heating element.

Lead, zinc and silver paper are under development for use as battery plates. They would give the battery a higher amperage than conventional plates.

Special papers developed by Mead researchers are used to collect the fallout of nuclear explosions all over the world.

Dr. Arledter said that other new papers are under development for use in ships, boats, aircraft, automobiles, rockets and building construction. Some of these will be as strong when saturated with water as when dry. And papers made of chemically modified cellulose will have 20 times the life of ordinary papers. ⊙

Made ANPA-RI Technical Editor—Frank J. Burrell has been appointed technical editor of the American Newspaper Publishers Assn. Research Institute located in New York. Burrell will be in charge of Research Institute mechanical and research bulletins, technical reports and other publications. He will keep newspaper publishers and production men informed of all developments in both present and future production methods and machines.

BURRELL

Sears to Evaluate Production Materials—Sears Roebuck has called upon the American Newspaper Publishers Assn. Research Institute to help conduct an evaluation program of the production materials the company supplies newspapers. Sears spends an average of $54 million per year in newspaper advertising. A committee composed of five members of the Mechanical Committee has been appointed to study Sears material and make recommendations which will benefit both Sears and newspapers. ANPA-RI members are being surveyed to determine what requirements are desired by newspapers setting Sears material in hot or cold type.

To Direct Research at Robertson—Paul A. MacPhee has been named director of research and development at Robertson Photo-mechanix, Inc. In making the announcement of the appointment, Leonard S. Florsheim, Jr., president, said that MacPhee will work on further aspects of electrostatic reproduction and on new automated photographic and reproduction systems.

MacPHEE

A graduate of Pratt Institute, New York City, with a degree of Bachelor of Chemical Engineering, MacPhee has served as manager of the new product development group of National Cash Register Co.

3M Names New Research Head—Dr. Charles W. Walton has been appointed vice president-research of Minnesota Mining and Mfg. Co. He succeeds Dr. Carl Barnes who recently resigned. In his new position, Walton will be responsible for central research and the products fabrication laboratories of the company. It is reported that the budget for 3M research in 1961 amounts to $25 million—about 4% of sales.

Elected Chairman of PATRA Research—Philip J. Wright, director of John Wright and Sons, Ltd., has been elected chairman of the research committee of the Printing, Packaging and Allied Trades Research Assn., England. He succeeds Dr. A. J. Kieran, of Unilever's research division, who resigned because of increasing business commitments. Wright has served on PATRA's research committee for nine years.

The LUDLOW Way to Profits

These Ludlow products afford profitable operation with direct production results, avoiding unnecessary steps that slow down the work. All three have earned their standing in the printing industry—Ludlow for fine typography, Elrod for quality strip material, and the Brightype camera for quality conversions.

Ludlow All-Slug Composition

Direct slugline composition with easily-handled Ludlow matrices, from copy to hot metal to form, eliminating the manufacture or purchase of single type. Solid slug forms expedite make-up and lockup, and save press-room time. These short cuts mean larger profits for you.

Brightype Conversions

This method uses existing typesetting facilities to convert letterpress material into photographic images for offset lithography, letterpress and other printing processes. Eliminates many operating procedures; assures clean, sharp reproduction. Brightype users find it a time-saver in handling most requirements.

Elrod Quality Strip Material

This single-purpose machine effectively produces an abundance of quality strip material for many uses. Simple in design and mechanism, the Elrod requires minimum operator attention, and the material withstands hard use. Ideal for spacing material, rule and base. Gas or electric-heated; six different models to fit your particular needs.

Ludlow, Brightype and Elrod folders will show you how to increase your profits—write for your free copies

Ludlow Typograph Company · 2032 Clybourn Avenue, Chicago 14

Set in members of the Ludlow Record Gothic Family

For More Information Circle 118 on Reader Service Card

Subtle Tones...

when you CHOOSE THE RIGHT PAPER FOR THE JOB!

The delicate tonal gradations from deep black to brilliant white contribute as much to the beauty and charm of this stunning photograph as does the subject itself, its lighting, its mood, its composition. And it is here—in the faithful reproducing of the subject—that the printer's experience and familiarity with the tools of his trade count. Paper is one of these tools.

Prentice Velvet coated offset was chosen to reproduce the subtle tones of this photograph because, while its soft, velvet-like surface enhances the delicate softness of the subject, its strength and superb printability make it ideally suitable to long runs and tough folding operations.

Choose the right paper for the job from papers expertly produced in some of the world's best mills—Kimberly-Clark Printing Papers.

For offset: Prentice offset enamel, Prentice Venetian, Prentice velvet coated offset, Prentice coated cover, Prentice velvet coated cover, Lithofect offset enamel, Shorewood coated offset, Fontana velvet coated opaque, Kimberly Opaque, Metro offset.

For web offset: Kimberly web offset enamel, Lithoweb coated offest, Kimfect "O" coated book.

For letterpress: Hifect enamel, Trufect enamel, Multifect coated book, Energy coated book.

These grades are available through select paper merchants who have been singled out for their ability to help you choose the right paper for the job.

Kimberly-Clark

"Subtle Tones," *printed on Prentice Velvet coated offset—80# basis.*

The following select paper merchants will help you choose the right Kimberly-Clark printing paper for the job

ALABAMA
Birmingham
Sloan Paper Company
Mobile
Knight Paper Company

ARIZONA
Phoenix
Blake, Moffitt & Towne
Tucson
Blake, Moffitt & Towne

ARKANSAS
Little Rock
*Arkansas Paper Company

CALIFORNIA
Fresno
Blake, Moffitt & Towne
Long Beach
Blake, Moffitt & Towne
Los Angeles
Blake, Moffitt & Towne
Carpenter Paper Company
Ingram Paper Company
Oakland
Blake, Moffitt & Towne
Sacramento
Blake, Moffitt & Towne
San Bernadino
Blake, Moffitt & Towne
San Diego
Blake, Moffitt & Towne
San Francisco
Blake, Moffitt & Towne
Bonestell & Company
Carpenter Paper Company
San Jose
Blake, Moffitt & Towne
Stockton
Blake, Moffitt & Towne

COLORADO
Denver
Carpenter Paper Company
Pueblo
Carpenter Paper Company

CONNECTICUT
East Hartford
Carter Rice Storrs & Bement, Inc.
Hartford
Rourke-Eno Paper Company, Inc.
New Haven
Carter Rice Storrs & Bement, Inc.
Rourke-Eno Paper Company, Inc.

DELAWARE
Wilmington
Whiting-Patterson Company, Inc.

DISTRICT OF COLUMBIA
Washington
*Barton Duer & Koch Paper Co.
*John Floyd Paper Company

FLORIDA
Jacksonville
*Knight Bros. Paper Company
Miami
*Knight Bros. Paper Company
Orlando
*Knight Bros. Paper Company
Tallahassee
*Knight Bros. Paper Company
Tampa
*Knight Bros. Paper Company

GEORGIA
Atlanta
Sloan Paper Company
Wyant & Sons Paper Company, Inc.
Augusta
Dillard Paper Company

HAWAII
Honolulu
Honolulu Paper Company

IDAHO
Boise
Blake, Moffitt & Towne
Carpenter Paper Company

ILLINOIS
Champaign
Crescent Paper Company
Chicago
Berkshire Papers, Inc.
Carpenter Paper Company
Chicago Paper Company
*Midland Paper Company

INDIANA
Fort Wayne
The Millcraft Paper Company
Indianapolis
Central Ohio Paper Company
Crescent Paper Company

IOWA
Des Moines
*Carpenter Paper Company
Sioux City
Carpenter Paper Company

KANSAS
Kansas City
*Warwick Paper Company, Inc.
Topeka
Carpenter Paper Company
Wichita
Western Newspaper Union

KENTUCKY
Louisville
The Chatfield Paper Corporation
*Southeastern Paper Company

LOUISIANA
Baton Rouge
Louisiana Paper Company, Ltd.
New Orleans
The D&W Paper Company, Inc.
Shreveport
Louisiana Paper Company, Ltd.

MAINE
Augusta
Carter Rice Storrs & Bement, Inc.

MARYLAND
Baltimore
*Barton Duer & Koch Paper Company
*John Floyd Paper Company

MASSACHUSETTS
Boston
Carter Rice Storrs & Bement, Inc.
Springfield
Carter Rice Storrs & Bement, Inc.
Rourke-Eno Paper Company, Inc.
Worcester
Carter Rice Storrs & Bement, Inc.

MICHIGAN
Detroit
Seaman-Patrick Paper Company
Grand Rapids
Quimby-Walstrom Paper Company
Kalamazoo
Bermingham & Prosser Company
Lansing
*The Triquet Paper Company

MINNESOTA
Duluth
Carpenter Paper Company
Minneapolis
Carpenter Paper Company
*Leslie Paper
*Minnesota Paper & Cordage Company
St. Paul
*Leslie Paper

MISSISSIPPI
Jackson
Jackson Paper Company
Meridian
Newell Paper Company

MISSOURI
Kansas City
*Carpenter Paper Company
St. Louis
Beacon Paper Company
Shaughnessy-Kniep-Hawe Paper Co.
Tobey Fine Papers, Inc.
Springfield
Carpenter Paper Company

MONTANA
Billings
Carpenter Paper Company
Great Falls
Carpenter Paper Company
*Leslie Paper
Missoula
Carpenter Paper Company

NEBRASKA
Lincoln
Carpenter Paper Company
Omaha
Carpenter Paper Company

NEVADA
Reno
Blake, Moffitt & Towne

NEW JERSEY
East Orange
Bulkley Dunton & Company, Division of Carter Rice Storrs & Bement, Inc.
Newark
Linde-Lathrop Paper Company, Inc.

NEW MEXICO
Albuquerque
Carpenter Paper Company

NEW YORK
Albany
Hudson Valley Paper Company
Buffalo
Hubbs & Howe Company
Jamestown
The Millcraft Paper Company
New York
Baldwin Paper Company, Inc.
Beekman Paper Company, Inc.
Bulkley Dunton & Company, Division of Carter Rice Storrs & Bement, Inc.
Bulkley Dunton S.A.
*Linde-Lathrop Paper Company, Inc.
Royal Paper Corporation
Saxon Paper Corporation
*The Canfield Paper Company
Rochester
*Genesee Valley Paper Company
Syracuse
Genesee Valley Paper Company
Troy
Troy Paper Corporation

NORTH CAROLINA
Charlotte
Dillard Paper Company
Greensboro
Dillard Paper Company
Raleigh
Dillard Paper Company
Wilmington
Dillard Paper Company
Winston-Salem
Dillard Paper Company

OHIO
Akron
The Millcraft Paper Company
Cincinnati
The Chatfield Paper Corporation
*The Cincinnati Cordage & Paper Company
The Johnston Paper Company
Cleveland
The Millcraft Paper Company
The Petrequin Paper Company
Columbus
Central Ohio Paper Company
*The Cincinnati Cordage & Paper Company
The Scioto Paper Company
Dayton
*The Cincinnati Cordage & Paper Company
Lima
The Cincinnati Cordage & Paper Company
Toledo
The Millcraft Paper Company
*The Ohio & Michigan Paper Company

OKLAHOMA
Oklahoma City
*Carpenter Paper Company
Tulsa
Tayloe Paper Company
*Western Newspaper Union

OREGON
Portland
Blake, Moffitt & Towne
Carpenter Paper Company
Frazer Paper Company

PENNSYLVANIA
Philadelphia
D. L. Ward Company
Paper Merchants, Inc.
Whiting-Patterson Company, Inc.
Pittsburgh
The Chatfield & Woods Company of Pa.
*General Paper Corp. of Pittsburgh
Scranton
Elm Paper Company

RHODE ISLAND
Pawtucket
Carter Rice Storrs & Bement, Inc.

SOUTH CAROLINA
Columbia
*Palmetto Paper Company
Greenville
Dillard Paper Company

TENNESSEE
Chattanooga
*Bond-Sanders Paper Company
Sloan Paper Company
Southern Paper Company
Knoxville
Southern Paper Company
*The Cincinnati Cordage & Paper C
Memphis
Memphis Paper Company
Tayloe Paper Company
Nashville
*Bond-Sanders Paper Company

TEXAS
Amarillo
Carpenter Paper Company
Austin
Carpenter Paper Company
Dallas
Carpenter Paper Company
El Paso
Carpenter Paper Company
Fort Worth
Carpenter Paper Company
Houston
Carpenter Paper Company
Lubbock
Carpenter Paper Company
San Antonio
*Carpenter Paper Company
*Shiner-Sien Paper Company

UTAH
Salt Lake City
Carpenter Paper Company

VIRGINIA
Bristol
Dillard Paper Company
Norfolk
Old Dominion Paper Company
Richmond
Cauthorne Paper Company, Inc.
Dillard Paper Company of Rich
Roanoke
Dillard Paper Company

WASHINGTON
Seattle
Blake, Moffitt & Towne
Carpenter Paper Company
Spokane
Blake, Moffitt & Towne
McGinnis-Independent Paper Co
Tacoma
Blake, Moffitt & Towne

WEST VIRGINIA
Huntington
*The Cincinnati Cordage & Pa

WISCONSIN
Appleton
*Universal Paper Corporation
Milwaukee
Bauer Paper Company
Sensenbrenner Paper Co
*Universal Paper Corporation

CANADA

ALBERTA
Calgary
Smith, Davidson & Lasby, Ltd.
Edmonton
Smith, Davidson & Lasby, Ltd.

BRITISH COLUMBIA
Vancouver
Smith, Davidson & Lasby, Ltd.

QUEBEC
Montreal
Kruger Paper Company, Ltd.

Kimberly-Clark

*Merchants carrying Kimberly-Clark printing, cotton content and sulphite business papers. For a complete listing of business paper merchants, write to Kimberly-Clark,

Another major development from ATF . . . to help you produce more and better printing, more profitably.

THE NEW ATF-SENATOR CUTTER

with dial-selected automatic program channels, 100% electronic magnetic tape control, and guaranteed setting accuracy of .002"

The new ATF-Senator "Program Spacer" Cutter: so soundly designed, so simply automated, so easy to set, that it can outproduce conventional cutters two-to-one. Here are the more important design and operational features:

Up to 24 different jobs can be programmed for completely automatic electronic spacing • Instantly recorded space settings without a single mechanical adjustment — on reusable magnetic tapes • No re-programming of tapes required to adjust for slight gripper margin variations on subsequent runs • Airfilm center, side and rear tables available for fast, easy handling of heavy lifts — air passages cast in table — no tubes or pipe connections • Built-in safety factors including low pressure treadle; two-hand, push-button starting; an approved non-repeat device, plus a photocell device for extra safety • Extended rear tables available with or without airfilm surface, with automatic slot closing device — closes automatically, prevents sheet edges from catching when lift is moved.

The ATF-Senator is available in four sizes (32", 42", 52" and 61"). To learn more about how they can boost your production . . . and profits, write for our free booklet.

ATF type used in this ad: Century Exp. with italics and News Gothic Cond.

ATF AMERICAN TYPE FOUNDERS
Dept. W1 200 Elmora Ave. Elizabeth, N. J.

Chicagoans who participated in the Craftsmen convention bindery clinic included, left to right: Allan B. Dry, W. F. Hall Printing Co.; Arthur S. Colton, Conkey Div. of Rand McNally Co.; Arthur E. Blumenthal, moderator, W. F. Hall Printing Co.; E. H. Wolfe, Barrett Bindery Co., and James B. Blaine, John F. Cuneo Co.

Binders Battle Bungling

A TONGUE in cheek approach to the popular plea for printers to work closely with binders in planning a job was heard last month at the International Craftsmen's convention in Chicago.

It was provided by Arthur S. Colton, who labeled his talk, *The Binder's Big Battle on Bungling*. Colton, who is with the Conkey Div. of Rand McNally Co., Hammond, Ind., said: "We just don't get through to each other. There is so much specialization in the Graphic Arts, so much to learn about every branch of it . . . an individual cannot possibly comprehend the problems of all other divisions."

"Sabotage is easy," he said. "All you got to do is tell your binder nothing. Make up the job to any old layout and dump the sheets on his platform. Print it on 120 offset in 32 page sections with cross grain and run to the wrong guide."

Ways to Botch a Job

Colton went on to describe numerous ways that the printer can "botch up the job" and be, as he put it, "a super-stinker." Sneaky little ways of botching the job for the binder, he commented, would be for the printer to ". . . use a smeary or chalky ink that causes comber marks and that makes tapes or rollers filthy; run gloss inks that freeze the sheets together in the pile; let spray drip a gob every few sheets, or send in loads looking like a pile of hay so the binder has to jog them."

The speaker described the binder as the last man to handle the job who must make up for the delays caused earlier. The additional push, he added, compounds his troubles.

Colton ended his talk by suggesting issuance of a booklet for production men on the do's and don't's of binding. The booklet, he said, should set forth the right and wrong way to do things. It should incorporate trade customs and the warning that extra expense not created by the binder must be the burden of the department that caused this expense.

More cooperation between printer-binder was also the message of E. H. (Ted) Wolfe, president of Barrett Bindery Co., Chicago. He dealt with die cutting and finishing operations, and asked printers to consult the finisher before a job is committed.

Wolfe also referred to a tour he made of finishing plants in European countries and stated that much of the work produced in places he visited was inferior to ours. He said he did see isolated instances where some plants were up to U.S. finishers in the quality of their work, and only one case of a plant which was ahead of us in this respect.

Paperback Books

Binding of paperback books, described as a teenager in the annals of bookbinding, was explained by Allan B. Dry, a member of the plant operations staff of W. F. Hall Printing Co., Chicago.

Last year the Hall firm produced 231 million paperback books. Dry said the popularity of this type of book resulted in a 787.9% increase in dollar volume during the 1952-60 period.

The speaker also detailed the development of hot melt adhesives which he said led to a new era in paperback binding. Prior to this, in 1939 when Hall entered the paperback book business, the bindery used animal glue in conjunction with Perfect binding.

Dry related their early experiences: "When applied to a backbone faced with warm animal glue, the cover exhibited the desire to spring away from the backbone with all the energy of two negatively charged electrons. . . . we were producing thousands of books per hour with the covers popping off all over the floor.

"To overcome this problem, it became standard practice to pile the bound but untrimmed books with the backbone down. The books were allowed to remain in this position until the glue had set, and then the trimming operation could proceed. . . . with the long trimming time needed, books were soon stacked ceiling-to-floor and wall-to-wall." The later hot melt development made it possible for the adhesive to dry quickly so that the books could be trimmed right after binding.

N.Y. Printers Change Name

Members of the New York Employing Printers Assn. have voted unanimously to change the name of the association to Printing Industries of Metropolitan New York, Inc. The change of name was effective Sept. 1.

Litho Awards Exhibit

The 1961 Lithographers and Printers National Assn.'s Awards Exhibit has received wide attention in a number of cities. The exhibit is devoted to outstanding examples of different kinds of litho printing submitted in competition which were judged worthy of receiving awards.

Four exhibitions have been held and seven more have been scheduled, with requests for showings in nine other cities. The scheduled showings are Richmond, Va., Oct. 2-6; Durham, N. C.; Oct. 19-21; Cincinnati, Nov. 1-3; Milwaukee, Nov. 9-11; St. Paul, Jan. 9-12, 1962, and Cleveland, Jan. 14-20, 1962.

a complete line of supplies and equipment for your composing room

You can print a better looking newspaper faster...*and with more economy*...with efficient, reliable, production-tested supplies and equipment in your composing room.

The new, 72-page, 25th anniversary Eastern Catalog contains an expanded section devoted to the finest in Composing Room Equipment...plus hundreds of items for your Stereotype Department, Press Room, and Photo-Engraving Department.

For rapid service and consistent economy in newspaper printing supplies and equipment... order from EASTERN. Write for Catalog No. 25.

ENS
EASTERN
FOR
ECONOMY

EASTERN
NEWSPAPER SUPPLY, INC.
96-03 NORTHERN BLVD., CORONA 68, NEW YORK

For More Information Circle 58 on Reader Service Card

Printing Teachers Map Program

A six point program for printing education was approved by members of the International Graphic Arts Education Assn. during the association's 36th annual conference at Ferris Institute held at Big Rapids, Mich.

The 250 educators who were present made plans to: (1) utilize aptitude tests for selecting students for vocational and technical printing courses; (2) develop national standardized achievement tests for vocational printing seniors and issue special achievement certificates to those meeting prescribed standards.

Also, (3) publish new suggested outlines for courses of study covering the entire field of Graphic Arts education; (4) expand Printing Education Week programs in the schools; (5) publish a directory of over 3000 Graphic Arts and printing teachers, and (6) publish a history of Graphic Arts education in the U.S.

In the election during the conference, Richard J. Epp, Riverside City Schools, Riverside, Calif., was elected president.

Electrotypers Meet in Capital

The Hon. James L. Harrison, U. S. Public Printer, will present the opening address to more than 300 members of the International Assn. of Electrotypers & Stereotypers who are expected to attend the 64th annual convention at the Hotel Shoreham, Washington, D. C., Oct. 2-5.

Other government officials who will appear on the program on Oct. 2 are Horace Hart, Printing & Publishing Div., Dept. of Commerce, and a representative of the Federal Trade Commission.

Technical and management innovations will be discussed during the sessions on Oct. 2. Topics covered will include plastic backings for electrotypes, new equipment, supervision, cost control and personnel relations.

On Oct. 3, the annual awards luncheon will be held. Also, on that day, field trips will be taken to the Government Printing Office and various plants of IAE&S members.

Apprenticeship Meeting To Be Held in Chicago

Who is responsible for retraining displaced journeymen – labor or management? This will be the main topic at the annual meeting of the Graphic Arts Section, North Central States Apprenticeship Conference, Conrad Hilton Hotel, Chicago, Oct. 26-27.

Review Rocky Mountain Conf. Program—Shown reviewing the program for the Rocky Mountain Newspaper Mechanical Conf. to be held at Brown Palace Hotel, Denver, Oct. 27-29 are, left to right: Lloyd Hagen, Fort Collins (Colo.) Newspapers, Inc., secretary; Clinton Coakley, rotogravure superintendent, Denver *Post*; Carl A. Douglas, executive secretary, Printing Industry of Colorado; Gilbert Bailey, mechanical superintendent, Scottsbluff (Neb.) *Daily Star Herald*, president; O. L. Armstrong, A. E. Heinsohn Printing Machinery Supply, and Ralph C. Myers, composing superintendent, Denver *Rocky Mountain News*.

Printers Seek Safe Plants

Safety programs for the printing industry will be examined during the meeting of the Printing and Publishing Section, National Safety Council, to be held at Hilton Hotel, Chicago, Oct. 17. Among the topics to be discussed are safety and management, safety motivation and an analysis of printing accidents.

Hot Metal Pasteup

(CONTINUED FROM PAGE 42)

the base. By using standard base material and plate mounting tape, it is possible to leave the base standing in chases permanently for full page ads—applying the adhesive to whatever area is needed for an ad and later removing the adhesive and the type when breaking up. In this way, all of the repetitive cutting and handling of Elrod base and the lifting of heavy ad galleys is eliminated.

As an interesting alternative to the above method, it is possible to use solid, thick Plexiglas material instead of Elrod or stereotype base. With the Plexiglas base shaved to either 0.853 in. or 0.766 in. (depending on whether you are using 0.065 in. engravings or 0.152 in. flat casts), and the adhesive plate-mounting tape applied, the ad can be made up directly on the Plexiglas by placing the stripped type wherever desired. The resulting product is so light that a full size standard newspaper page is easily handled and stored.

Another variable handling can be used when the ad consists of either a complete engraving or a flat cast having mortises into which type is to be fitted. Apply cellophane tape to the back of the engraving or flat cast in such a way as to cover the mortised areas. Then by turning the plate right side up, the mortised areas will be covered with an adhesive surface onto which the type can be placed. Then the completed ad becomes a solid unit which can be lifted and handled like a complete plate having no loose type.

Here is still another variable: When making up ads which are to become pickups at a later date and on which corrections are likely to be made, use of either the plate mounting tape or the double-coated adhesive tape is recommended. This per-

mits the cutting out of an old section by scribing around the tape of the area to be removed, lifting out the section and laying down new tape in the area for the new section.

In addition to using the Striptype process for ads, it can be used in picture layouts and magazine pages. The use of the stripped groups of type for captions, for example, permits their application on a full page of base with no cutting or construction needed. All of the engravings and type can be fastened down wherever desired and moved around when necessary.

Possible Time Saving

The question of what saving will be effected through the use of this process cannot be answered yet. However, in view of all the controlled tests compared to conventional methods, it is indicated that the saving should range between 25% and 50%, depending on the type of ad being made up. This is no guarantee, though, that such saving will be forthcoming. There is no use evading the reality that time saving will depend on the extent to which the workman will employ the available advantages of the process.

Proper training in the technique will be an important factor. There is no question that there is a right way to use the process—and many wrong ways. It will be essential that every one who is undertaking use of the process also undertake to find out the right way to use it and require that workmen follow the technique. Otherwise, the tendency will be for every printer to develop his own tricks. Many of them will be unnecessarily time consuming.

Ad Pasteup Limitations

We know that some ads should not be made up with stripped type. Those ads which consist mostly of listings of items, closely spaced in columns, do not yield a gain when made up by this method. The criterion seems to be whether or not there is much construction remaining to be done after the type is spaced out.

If the ad is almost entirely made up after it has been spaced out, then it should be made up by conventional methods. There can be no gain in stripping and fastening all the type on an adhesive when all that would be necessary by conventional methods would be to wrap a border around the ad.

Because of this matter of training and judgment in the choice of ads to be made up by this process, it is recommended that the services of a trained methods engineer be used to lay down the ground rules for use of the process.

In addition to defining how the work should be done, the methods engineer can establish standards for the work. Creating standards for work done by this method will be much simpler than for conventional methods. Standards will provide a means for maintaining control over shop efficiency not heretofore practicable.

Newsday has applied for patents on this process but intends to make it available through license to the industry. *Newsday* expects to provide all of the information needed to use the process. A demonstration area has been set up in the *Newsday* plant where visitors can see the process in actual production. ⊕

CASTOMATIC® TYPE METALS

Get Superior Printing, Reduce Costs With Federated Castomatic Type Metals

For: Linotype • Ludlow • Intertype • Monotype • Stereotype

Federated type metals assure superior printing, because they are produced on the patented Castomatic machine. Each step in this exclusive, completely enclosed process is fully automatic and electronically controlled. Results are always consistent: Uniform metal composition, minimum drossing, no segregation, uniform melting point bar to bar.

Castomatic type metals insure these advantages for you: More solid slugs, longer runs, free-flowing metal to minimize clogging at orifices and plungers, fewer machine adjustments and sharper faces for improved reproduction.

For your copy of a new wall card, "A Guide to Better Type Metal Performance," write to: Federated Metals Division, American Smelting and Refining Company, 120 Broadway, New York 5, N. Y., or call your nearest Federated sales office. In Canada: Federated Metals Canada, Ltd., Toronto and Montreal.

ASARCO

For More Information Circle 65 on Reader Service Card

Wisconsin Show Planned for Nov.

The largest exhibit of Graphic Arts equipment and materials ever assembled in Wisconsin will be displayed during the March of Progress Exhibit and Conf., sponsored by the Graphic Arts Assn. of Wisconsin, in Milwaukee, Wis., Nov. 9-11.

DROW

In addition to the exhibition, litho and letterpress clinics, a forum on preparing art for reproduction and a management conference will be conducted.

According to Gregg Drow, Quality Press, Milwaukee, general chairman, only a few of the 170 exhibition spaces remain available in Milwaukee's auditorium, where the exhibition will be held. Over 75 different manufacturers and distributors of equipment will be represented. One special exhibition of the G.A.A. of Wisconsin will feature equipment used 75 years ago to commemorate the organization's 75th anniversary.

The letterpress clinic will be held on Nov. 11 and will include an explanation and demonstration of latest developments in letterpress plates, a report on the future, and discussions of preventive maintenance and materials handling.

Members of the research staff of the Lithographic Technical Foundation will report on all phases of lithography during the lithographic clinic on Nov. 11.

Plan Printing Courses For New York Area

Enrollment will open Sept. 25 for the 20 classes which compose 15 evening courses in printing and related subjects to be offered for the 45th year by Printing Industries of Metropolitan New York, Inc., (formerly known as New York Employing Printers Assn., Inc.).

Classes will begin Oct. 16 and will be held once weekly for 20 weeks, except the conference courses which will have 10 sessions. Tuition fee is $55.

Typographic Clinic

(CONTINUED FROM PAGE 62)

The speaker mentioned that an intelligently filled out job ticket, practical layouts and clear typewritten copy properly marked up for typesetting and properly keyed to the layout will speed up work throughout the composing room.

"In the average composing room," stated Tommasini, "coordination of all incoming and outgoing work should be effected by a simple daily record kept by the composing room foreman. By making entries quickly on the sheet with different colored pencils, the foreman will be in a position to know instantly the status of every job in his department."

Defines Creative Typographer

Dr. R. Hunter Middleton, director of type design, Ludlow Typograph Co., speaking on type faces, said: "Our concept of type today differs from the immediate past. With advertising as the objective and the designer in charge, type has been taken into the display area, not only with the impact of the Gay Nineties, but also with a comparable esthetic taste of traditional book typography.

"The users or specifiers of type today are qualified designers who understand the esthetic relationships of many more elements than the traditional typographer. For this reason, the designer thinks of type more as isolated letterforms or as one of the elements of design instead of something related to history having nationalistic significance.

"The old classifications such as Egyptian, Antique, Oldstyle, Transitional and Modern mean very little to the designer-typographer today."

Middleton continued: "The reason for today's strong popularity of the Grotesque or Gothic styles is because of the simplified structure of these letterforms and their adaptability to almost any classification of printed communication.

"These types are available in many sizes, widths and weights. They can be used as design elements with variable impact making up for any deficiencies in legibility as compared with serifed letters of the traditional periods."

Burton Cherry, of Burton Cherry Associates, Chicago, spoke on typographic trends. Basic motivation for these trends, he said, is caused by the advent of phototypesetting.

Impact of Photocomposition

Speaking on the impact of photocomposition, Howard N. King, Graphic Services, Inc., York, Pa., commented: "To those who have not examined photographic typesetting closely, it would appear as though all of the advantages of this method were stacked in favor of offset-lithography and gravure. However, if we do a critical analysis of the benefits of this method of typesetting in specific areas of production, we will find some surprising answers."

To illustrate, he mentioned that over 50 newspapers are setting advertisements photographically. This trend can be expected to continue.

King stressed that copy markup is the first and most important step in phototypesetting. The markup man must determine how the space will be utilized—how all elements will fit. Everything that can be set on the machine is set exactly in place, just as it will appear on the galley or in the made up page.

According to King: "Film is more flexible, easier to handle and faster than hot metal makeup. Fitting in screened heads, cutting in illustration positives, tint backgrounds and reverses, and adding to the positive by pen or brush any special marks or symbols is a simple process in the hands of a skilled makeup man. We usually furnish negatives rather than positives; these are obtained by contact printing the original positive on a Colight contact frame."

Type Faces for Offset

Some one in the audience commented that originally type was meant to be used in the letterpress process. He then asked: "Is there any movement among type designers to provide type faces especially suited for the offset process?" Dr. Middleton replied: "If there isn't there should be."

In response to a question from the audience regarding the use of tape recorders in proofreading, King said: "It has not yet been decided as to their efficiency for use in reading

WHICH OPERATOR (A or B) SETS MORE TYPE?

• B of course! Because B is punching *tape* on a Teletypesetter® Perforator, while A is setting type manually on a linecasting machine.

• In fact, when you compare composing speed for such jobs as books, magazines, directories, house organs . . . any kind of straight or tabular matter . . . Teletypesetter operators can set type twice as fast as manual operation of standard linecasting machines. The TTS® system can save you 40% or more on composition costs.

• Get the full return from your linecasting machine investment. Take the first step by mailing the coupon today.

ANSWERS to questions commonly asked about TELETYPESETTER®

I always thought Teletypesetter was for newspapers. We run a commercial shop.

So do many Teletypesetter users. Its versatility makes it ideal for such jobs as books, magazines, house organs, school yearbooks, legal briefs, personalized checks, brochures, guides, voter lists and Christmas card imprints.

How does TTS save money?

Manually operated, any linecaster seldom exceeds 3,000 ems per hour. Equipped with TTS, a linecaster automatically and continuously runs at its maximum rated speed – about 7 to 8,000 ems per hour. Peaks and valleys of manual stop-and-go operation are eliminated by substituting the steady continuous production obtained only through automatic operation.

How does TTS operate a linecasting machine?

A touch-typist punches tape on the TTS Perforator, which has a typewriter-like keyboard. Every letter, character and linecasting machine function is recorded by perforations in the tape. The tape is fed into the Operating Unit installed on the linecasting machine and operates it automatically. It will handle any type face from 5½ to 14 point in any line length up to 30 picas.

What about maintenance?

TTS is a mechanical system, easily serviced by your shop personnel.

Now *we'll* ask *you* a question. Why not mail the coupon today for a 24-page booklet which will answer far more questions than we have room for here?

FAIRCHILD GRAPHIC EQUIPMENT
DIVISION OF
FAIRCHILD CAMERA AND INSTRUMENT CORP.
Sales and Service offices throughout the world

Fairchild Graphic Equipment, Dept. FGE 65
Fairchild Drive, Plainview, Long Island, N. Y.

Please send me "More Type in Less Time."

NAME_____

COMPANY_____

STREET_____

CITY_____ ZONE____ STATE_____

For More Information Circle 64 on Reader Service Card

copy and for read-back." Another reply came from the audience: "Tape recorders are only efficient on simple type matter."

Regarding the creative printer in the composing room, Burton Cherry said he didn't think it was necessary for him to be creative.

A member of the audience commented upon the improper specification of type faces. He said that in a recent large mail order catalog Bodoni Bold type was specified to appear in reverse panels. In the reproduction the letter serifs were lost. Cherry replied: "Sure, the serifs were lost in the reproduction and the type became sans serif."

Answering a question regarding trends in the use of type faces, Cherry said there is no trend but there is a fashion. Today's typographer knows that type is made to read. It must be legible to put across the message.

In answer to a question regarding where to draw the line between hot metal and phototypesetting, King said that phototypesetting can compete where illustrations are involved. However, in the case of a 1000 page novel without illustrations phototypesetting can't compete.

King again stressed that the important thing in phototypesetting copy markup is knowing when to set white space. For instance, the markup man should know when to indicate that an 18 pt. line is to be set on 48 pt. body before sending the copy to the machine.

Replying to a question about the use of different colors of paper in straight matter composition to indicate the type point size, Tommasini mentioned that in one composing room such tinted paper is used. It is essential that proper instructions be given to save time in the composing room. For instance, the customer would prepare his copy on yellow paper for 10 pt. composition.

Universal Mono-Tabular Is Lanston Division

The assets and business of Universal Mono-Tabular Corp. and its subsidiary, Bro-Cast, Inc., have been acquired by Lanston Industries, Inc. Universal Mono-Tabular is engaged in the manufacture, sale and distribution of Universal strip casting and broaching machines.

N.Y. Community College Lists Printing Courses

The fall schedule of Graphic Arts classes beginning September 25 and running to the middle of January has been announced by New York City Community College. The college offers a two year course leading to an Associate in Applied Science degree.

Among the Graphic Arts courses offered are: Basic Photo Processes, Principles of Typography, Fundamentals of Reproduction Processes, Elementary Estimating, Color Reproduction Technology, Production Management and Printing Papers.

For further information, write for catalog T, New York City Community College, 300 Pearl St., Brooklyn 1, N. Y.

FTA Sponsors Sessions In Chicago, Sept. 23

Four technical sessions and two plant tours are planned for the regional workshop sponsored by Flexographic Technical Assn., to be held at St. Phillips High School, Chicago, Sept. 23.

Topics of the technical sessions are to be ink matching, mixing and color control; construction, disassembly and cleaning of ink pumps; construction, operation and maintenance of press cylinders, and plate mounting. Demonstrations will be given throughout the sessions.

Registration will be in the lobby of the school at 3141 W. Jackson Blvd. Chairman is John E. Lecraw of Mosstype Corporation.

LPNA to Hold Workshop For Litho Management

A Fall Workshop will be sponsored by the Lithographers and Printers National Assn. on Nov. 27-29 at the Edgewater Beach Hotel, Chicago.

The Workshop will be held to permit exclusive participation of lithographic management to delve into problems being faced in the present era of industry transition.

Development of executive personnel to assume the reins of management will be discussed. Other topics will be related to labor and industrial relations, sales management techniques, profit budgeting and forecasting, decision making, and direct costing.

V-Belt Maintenance

(CONTINUED FROM PAGE 59)

or dished out, the V-belt's wedging action is impaired and its gripping power is reduced.

One form of sheave wear results from the constant corroding of the sidewalls. Because sidewalls are highly polished, they tend to corrode quickly from condensation of moisture or chemicals in the air. As the accumulated corrosion is polished away by the action of the belt, gradual wearing takes place.

A shiny sheave groove bottom is a sign the belt, or sheave, or both, are badly worn and the belt is bottoming in the groove. This condition will show up first on the smaller sheave.

When installing a new belt, it is usually wise to replace the motor sheave. It may seem unnecessary or downright wasteful but it will prove to be sound preventive maintenance. Because of its small size and high load capacity, the motor sheave is subjected to excessive wear. The result is a worn or dished out sheave which causes power loss, slippage and increased belt wear if it is not replaced.

Wobbling Sheaves

Sheave wobble, caused by improper installation on the shaft, a worn or damaged bushing or sheave hub, or a bent shaft, can lead to power transmission failure and the resulting unwanted, unprofitable machine down time. A wobbling sheave whips the belt from side to side, subjecting it to lateral strains which produce rapid wear of both sheave and belt. Undue machine vibration is another indication of an improperly installed sheave and a definite danger signal.

Sometimes cast sheaves become chipped and pressed steel sheaves become bent. Regardless of the type of damage, any such sheave produces rapid belt wear and should be replaced immediately.

V-belts may seem an insignificant item in a printing plant's preventive maintenance program. Yet if they are allowed to fail through abuse or neglect, even the most expensive piece of equipment will grind to an unnecessary—and costly—halt.

"CRYING won't bring back my lost press time!

From now on I'll use this CROMWELL Offset Packing with the caliper plainly marked on every sheet!"

Who wouldn't weep if he got the wrong caliper packing every time on a rush make-ready (and aren't they all!)?

It's the sort of thing that can never happen with this Cromwell Offset Packing. The caliper is printed plainly every 10 inches on every roll or sheet. There's an arrow, too, every 10 inches, showing the grain direction. You can't put Cromwell Offset Packing on the wrong way.

Cromwell gives you other money-saving advantages, too. The packing is specially treated to prevent slip. It can't creep under the blanket. Uniformity of thickness is unconditionally guaranteed. The hard, firm surface won't thin out or "mush down" on long runs.

Sheets are supplied tailor-made to the pressman's individual specification to avoid waste of time, labor and paper in trimming so-called stock sizes to a particular dimension.

This Cromwell Offset Packing is 5 mil. Offset Packing and Tympan are available in calipers .002 to .010, also .012 and .015 in minimum quantities of one roll or 500 sheets cut to customer's specifications.

5 MY CROMWELL

Cromwell paper company

180 N. Wabash Avenue • Chicago 1, Illinois • DEarborn 2-5320

Manufacturers of: Papers (Impregnated • Coated • Laminated • Reinforced • Flexible) Bags • Sacks • Liners • Covers (Single and multiwall construction, using all types of material to carry, cover or protect all types of products).

Please send information on Cromwell Offset Packing. 10

Name_____ Title_____

Company_____

Street_____

City_____ Zone____ State_____

Eliminating Dust

(CONTINUED FROM PAGE 54)

frames to aid in the confinement of the spray, drop curtains were provided at the sides of the plywood sheet. These curtains can be raised if access is required, and have not been found to be objectionable. In addition, the plywood sheet was located high enough above the delivery so that the operator's vision was not obscured.

By confining the dust to a limited area, and removing it with a hood in the proper location, it was possible to keep the total volume of air to be moved to a minimum. In this case, 52 in. by 76 in. presses dominate. The air volume per press or hood was found to be 2500 c.f.m. In one building there were 10 presses, each requiring 2500 c.f.m. and six job presses which required a total of 10,000 c.f.m., making a total of 35,000 c.f.m.

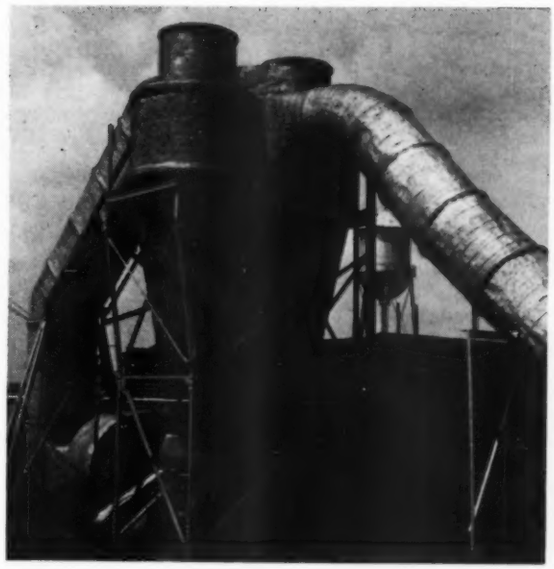
In the other building, there were eight rotary presses. However, provision was made for a total of 12, resulting in a 30,000 c.f.m. total system capacity. In this case, a special set of conditions applied in that the heating system in one of the pressrooms was to be reworked at the same time. For this reason, plus the fact that there are two rooms and large quantities of air involved, two separate systems were used.

Basic Requirements

The basic requirements for a recirculating system of this type include: (1) Adequate cleaning of air to be recirculated; (2) Provision for tempering makeup air, and (3) Provision for 100% exhaust during summer operation with suitable filtering of makeup air.

The last two items, tempering of makeup air and provision for summer-winter operation, are straightforward. They are encountered daily in the design of heating and ventilating systems. The first item presented a problem in this case. Due to the extremely small particle sizes and the relatively high concentration, we found that the use of filters alone would be impractical.

It would be possible to use more filters, thereby reducing the frequency of changing, but it was decided to use a self-cleaning separator ahead of a conventional filter bank. Standard cyclone separators were tried but it was found that, due to the extremely small dust particle size and weight, the efficiency of the separator was extremely low.



Wet wall cyclone separators and penthouses were located on the roof at Kingsport Press as close as possible to pressrooms. Two separators were connected in parallel to provide sufficient capacity. Dust laden air is cleaned and returned to the pressrooms.

It was decided to test a wet wall cyclone separator. With this type of equipment (Fig. 1), a very thin layer of water is placed against the wall of the cyclone separator at the intake point. Due to the centrifugal action the dust is mixed with the water and the mixture is drawn off at the bottom of the separator while the air takes its normal path through the exhaust duct at the top. The water-dust mixture is placed in a settling tank which is slurried off as required. This type of separator is highly efficient for the cleaning of anti-offset spray from the air.

This wet wall cyclone separator removes a large percentage of the dust from the air. The air then moves on to a chamber, where it may be exhausted to the outside for summer operation, or diverted into a second chamber where it is mixed with makeup air, filtered and introduced into the humidifier, heating coils and into the return air system.

In the Kingsport Press installation (schematic principle shown in diagram Fig. 1) where the heating system was being reworked and incorporated into the dust removal system, it was possible to locate the inlet ducts and exhaust hoods in such manner as to have good heat distribution. At the same time, natural movement of air is created across the presses toward the hoods.

In Fig. 2 is shown the type of hood and method of installation used in the sheetfed rotary pressroom. In the over-all view, Fig. 3, it is possible to see how the pickup ducts and return ducts were installed in this room.

Flatbed presses were equipped with similar hoods but included the drop curtains, Fig. 4. The drop curtains on the sides of the delivery may be lifted out of the way to permit complete access to all parts of the delivery.

Hoods for Vertical Presses

The Vertical job presses were equipped with special hoods. In each case, it was necessary to custom design the hood for each particular type of press. A small flatbed press, for example, the one shown in Fig. 5, was equipped with a slotted duct at the edge of the delivery which could be swung out of the way when working on the delivery or removing a skid of paper.

The wet wall cyclone separators and penthouses were located on the roof as close to the pressrooms as possible. In each case, two separators were connected in parallel in order to provide sufficient capacity.

The net results of the installation were: (1) Marked reduction in the amount of dust laden air in the pressrooms; (2) Reduction in the frequency of press washup; (3) Reduction in frequency of cleaning filters in the heating and ventilating system, and (4) Reduction in general maintenance in the pressrooms.

HELPS FEED THIN PAPER

Feeding tissue and other thin papers on our Verticals has always been a very slow and troublesome job. Our presses are equipped with a small powder spray non-offset gun. But by shutting off the powder and allowing the air to blow down on the delivery, which forces the sheet down, we have speeded our presses up to normal running time. Now we run all thin papers as fast as bonds. *—Tom Rice, President, Inland Printing Co., Walla Walla, Wash. Courtesy Kimberly-Clark Corp.*

SOLVES METAL DRIP PROBLEM ON STRIP CASTING MACHINE

Some composing room strip casting machines tend to drip metal from the mold housing when shut

off after the day's run. Sometimes the metal will overflow the drip cup and practically solder itself to the lower part of the mold housing, water pipe and heater wire circuit.

In the case of gas heated metal pots, the metal will overflow into the sealing heater burner. This creates an annoying situation for the operator and serious damage to machine parts can be caused if care is not exercised in removing the dripped metal.

We eliminated this difficulty by cutting a cover from $\frac{1}{32}$ in. thick steel about the same size as the mold housing. The top edge of the cover was bent at right angle to form a ¼ in. lip. We then secured a small but powerful horseshoe magnet. A small extension coil spring was attached to the magnet to serve as a handle.

As soon as the machine is shut off, the cover is placed over the mold housing opening. The magnet is placed in position as shown in the picture. The cover eliminates the metal drippage and saves valuable cleanup time.—*Clark Fordham, Machinist, Roseburg (Ore.)* News-Review.

SETTING PUSHER FINGER BAR

We have found it convenient to stamp numbers below the notches on the Pusher Ways of our Miehle flatbed cylinder presses. These numbers run from one to nine and then repeat, the full length of the ways. The pusher finger bar can be set perfectly straight immediately, without the usual trial and error procedure. *—John V. Moran, teacher, Tilden High School, Chicago 9. Courtesy Kimberly-Clark Corp.*

Departmental Ink Cabinets Pay Off

Economical ink can storage may be a problem in many printing plants unless suitable storage facilities are provided. The customary procedure is to move the ink for a given job direct from the plant stock room to press. But foremen in job press and offset press departments at Parthenon Press, Nashville, Tenn., have found that a separate ink storage cabinet in each of these departments pays off in time and space convenience. They also aid greatly in the disposition of inks left over from a job. Ink for the larger presses, both letterpress and offset, usually in larger containers, had best be sent direct to the press.

In these Parthenon Press departments the requisition for the specified ink is sent to the stock room and the lot is immediately transferred to the department storage cabinet. The press operator finds it (identified by color and number on instruction sheet and on container label) and takes all or one container at a time to the press to fill the fountain. Most pressmen return any partially filled containers to the cabinet. An ink container (especially if a large one) is always in the way around the base of a press.

Here the Parthenon Press plan

Ink storage at Parthenon Press, Nashville, Tenn., has been departmentalized resulting in a saving in time and money. At left is the job department's ink cabinet; at right, storage facilities for the offset pressroom.

really begins to pay off with the disposition of left over inks. In this and many other plants there are numerous small jobs (using regular black or a standard color ink) for which no requisition is issued to the stock room. Instead, a per-thousand-impression ink charge is made against the job. The ink for this (and it is usually available there) is taken from the leftovers cabinet in each department.

Usable leftovers in these ink storage cabinets may be returned to the local ink house for remixing into regular black or standard color combinations. Obviously, not having to return leftovers to the plant stock room saves both space and employees' time.—*P. R. Russell, Nashville, Tenn.*

THIN SPACE BOXES

Many shops move their brass and copper thin-space case from rack to rack, often upsetting it. We make little cardboard boxes to fit exactly in the 3-em space compartment, about ½ in. deep, 1 in. wide, and long enough to make a tight fit across the top of the compartment. Result is a handy, spill-proof box, not needed for all cases, but we do have some of each size in each rack. (One size can be used with more than one case.)—*Hallock Card, Owner, The Homestead Press, Ostelic, N. Y. Courtesy Kimberly-Clark Corp.*

For the Reader

A chance to be paid for ideas which have netted savings in time, money and effort in your printing plant is offered readers of *Printing Production*. If your idea is accepted for publication it will be printed in the Idea File, a regular *Printing Production* feature, and a check will be mailed to you.

Simply write down a description of the idea; be as complete as possible in your explanation. Include a photo or drawing if you think it will show the helpful idea better. Additional payment is made for items with pictures.

Send as many as you wish to: Idea File Editor, *Printing Production*, 1276 W. 3rd St., Cleveland 13, O.

Bet Nolan Can
Help You S.S.P.*
*SPEED STEREO PRODUCTION...
added savings in time and labor for casting, mat drying, plate mortising!

NOLAN FULL-PAGE SUPERCASTER

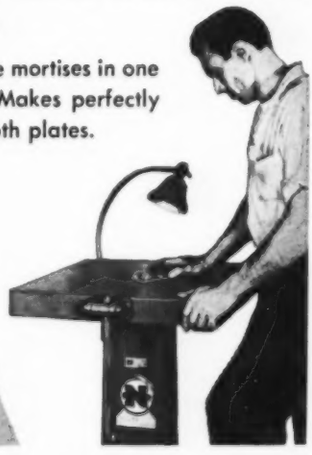
For efficient, continuous casting, faster cooling, superior pit-free surfaces. Features 1000 lb. gas or electrically heated metal pot, optional water cooled top platen and/or vacuum equipped bottom platen. Truly superior—both in design and performance!

NOLAN MATRIX DRYER

Permits quick, thorough drying, perfectly flattened mats every time! Uniform heat distribution over entire drying surface from single point control. "Floating" cover feature for pre-shrinking mats.

NOLAN MORTISER

Drills, outlines, cuts inside mortises in one quick, easy operation! Makes perfectly vertical cuts, clean, smooth plates.



WRITE TODAY for full information on these quality NOLAN products.

NOLAN Corporation
ROME, N. Y.

For More Information Circle 144 on Reader Service Card

Paper Performance

(CONTINUED FROM PAGE 45)

a lot of stock and be forced to make up the loss!

The pages of the manual bring out, as a rule of thumb, that both lightweight and heavyweight papers afford difficulty on almost all operations. For example, jogging: Ever try to dance a few hundred sheets of india paper on their edge? How would your arms feel if they had jogged a few tons of 100 lb. offset? Even machine jogging on these stocks afford no joy!

The manual also indicates the difficulty experienced with pickup on the stitcher on stiff covers. Suppose for example that the customer wanted 94 lb. high gloss cover. Production on feeding the saddle stitcher would drop to about 20% of normal speed, add extra hours and probably some additional spoilage to the cost of our job. If we went back to our 65 lb., coated either one or both sides, we would be a lot better off.

Since we'll be printing the full text sheet work and turn, there is no extra cost for cutting this stock for printing.

Performance on Folder

Consider folding performance. Buckle machines are rated at so many inches per minute, the speed depending on the fold factor, *i.e.*, the length of the sheet being fed.

We would slit the printed text sheet on the press, if possible, to 25 in. by 38 in. and cut this in half to 19 in. by 25 in. This is done as the manual recommends using only three right angle folds. The job could be run as single 16 page signatures or a 16 page signature, two up; but since the press run is so short it would be impractical.

We would fold the job on a buckle folder. Each 16 page form will take the requisite number of folds; one each in the parallel, right angle and 16 page section.

The 19 in. by 25 in. text sheet will feed along the 25 in. dimension into the first fold plate. This stock, rated at 50-60% in the catalog, would run at slightly better than half this speed, hence you would loose considerable time. Running at normal speed the job would require about three hrs. for 10,000 copies to set up and fold. However, with the type of stock listed it would require about two hrs. additional.

'Test Run Before Printing'

The advantages of using a reference guide such as this are clearly pointed out in the PAR manual: "It is usually advisable, especially for heavy stocks, to make a test run before printing to determine whether or not the paper can be folded the desired number of folds."

Such pretesting adds something to your overhead cost, but not as much as finding out only after the job is on the folder that it won't run at the speed you thought it would. Using the manual, however, enables you to determine the fact beforehand and this foreknowledge enables you to figure the extra hours required in the cost of the job.

Fortunately, for the rest of the job, the 100 lb. text will behave fairly well. The cover will require about 2 hrs. to fold. However, we have a loss of production on feeding our cover on the stitcher because of the difficulty in picking up the stiff cover. Since the slowest feeder on the stitcher sets the pace for the job, our calculated running time for the 5000 books on average paper would be about 1½ hrs. under normal conditions. Now, however, we would probably require another ¾ hr. each on stitching and trimming.

Table Shows Additional Time

Thus, the total picture of additional time required to run the two stocks chosen for our hypothetical job is shown in the table accompanying this article. The $51 cost for additional time on the job is a tidy sum to lose by not knowing in advance what sort of problems and difference in running time these two stocks afford. A few dollars like this lost on a comparatively simple job, if multiplied by many, would certainly add up heavily in a very short time.

The manual, in combination with careful study of PAR, will enable you to avoid many of these pitfalls in your estimating procedures. However, do not overlook the necessity of keeping your own performance records. Perhaps you've been extremely fortunate and very few are.

If you include the recommended additional time in your estimate and get the job, then you've gotten your cost without a penalty. To this you add your profit. If your competitor quotes at the regular production rates and gets it, that $51 has to come out of his profit.

Your bargaining position is obviously sounder for you can shade your profit a bit to get the job, yet not take it at a loss so long as you keep that extra $51 cost in.

This is the kind of production control and cost analysis you need today to stay in business and to secure a reasonable profit. The investment of the few dollars required for the *Paper Reference Manual* will save you thousands within a short time by eliminating guesswork and enabling you to figure out trouble spots before encountering them.

The manual is available through S. D. Brown, Jr., Printing Industries of Metropolitan New York, Inc., Binders Group, 461 Eighth Ave., New York City.

Consultants, Newspapers Study Classified Pages

An all-inclusive study of classified advertising activities of newspapers with extensive classified operations has been undertaken by Collier Elliott & Associates, Garden City, N.Y. The project was originated by the American Newspaper Publishers Assn. Research Institute but was turned over to a group of larger newspapers when it became apparent that the study would be most pertinent to plants with extensive classified activities.

Included in the project will be study of the hiring and training of ad phone and street sales personnel; formulation of policies; following through all necessary processing steps in the classified department, composing room and accounting department, and concluding with management reports.

Purpose of the study is to compile information on production loads and on time necessary for accomplishing procedures followed in processing classified ads.

Selected to head the group of 20 participating newspapers is F. W. Schaub, Lindsay-Schaub Newspaper, Inc., Decatur, Ill. Further information may be obtained from Schaub.

This is Wood Flong's 50th anniversary. It is also the birth of a new era in newspaper printing.

Thanks to Wood Flong's first half century of research and development — which produced the first successful American dry mat; the first successful one-piece, no-pack mat; the first mill coated mat; the first successful mill conditioned mat; the first multiple cast mat — better stereotype plates are being produced faster and more economically.

Today, the newspaper industry depends confidently upon Wood Flong for immediate, helpful response to its needs. This response may come in the form of good service or it may be special research or production to solve the customer's individual problems.

And all this is only the *beginning*. The next half century should bring even greater achievements. Already a huge new expansion program promises to outshadow the pioneering advances made in the exciting first 50 years!

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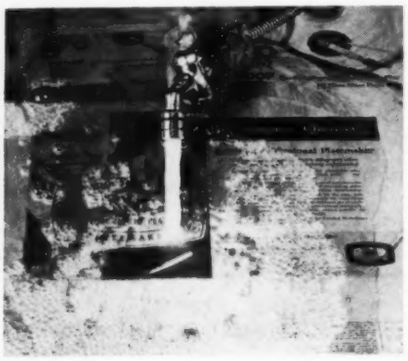
For More Information Circle 217 on Reader Service Card

New Equipment and Supplies

You may easily and quickly obtain additional information on the new equipment, supplies and services mentioned on these pages by completing the special Reader Service Card conveniently found in this issue.

WATER SPRAY FIXTURE FOR OFFSET PLATEMAKING

A water spray feature for use in offset platemaking operations has been announced by T & S Brass and Bronze



Works, Inc. The unit features a non-splashing aerator and an automatic shut-off valve with a button control which must be depressed for water flow. When the control is released, the flow stops. CIRCLE NO. 282 ON READER SERVICE CARD.

DISPOSABLE PAPER DRILL

A two-piece, disposable paper drill, said to eliminate 95% of the chip restriction, is available from Woodward Research Co. Made of high tensil aircraft alloy steel the drill is available in a wide range of sizes from ⅛ in. up through ½ in. Although designed to be thrown away after use, the drills may be sharpened in the conventional manner. CIRCLE NO. 268 ON READER SERVICE CARD.

ADHESIVES FOR FOIL SURFACES

Two new formulations of Thermogrip hot melt adhesive said to extend its effectiveness in bonding foil to foil, foil to other surfaces and foil to metallic surfaces, have been announced by United Shoe Machinery Corp.

Identified as Thermogrip 311 and 312, the adhesives are also said to be suited for use with polyethylene–coated paper, plain kraft, waxed paper, and coated and treated board. It is stated that the adhesives are flexible and water and moisture resistant. Formulation 311 is reported to offer better flexibility than formulation 312 at low temperatures. Temperature limits of bonds under stress are 0 deg. F. to 150 deg. F for 312 and –20 deg. F. to 150 deg. F. for 311. CIRCLE NO. 286 ON READER SERVICE CARD.

ELECTRONICS CONTROL NEW PHOTO TYPOSITOR MACHINE

The operation of Visual Graphics Corp.'s film lettering machine, the Photo Typositor, is visible, automatic and electronically controlled. The company claims the machine enlarges or reduces from standard film alphabets (8 pt. to 196 pt.) and develops each letter as it is exposed.

With the Photo Typositor letters can be slanted left or right, condensed or expanded, staggered, curved, inter-

locked, letterspaced, stepped down and up and repeated, as well as other operations.

The machine fits on an office desk or table and operates on 110 V. CIRCLE NO. 265 ON READER SERVICE CARD.

READS RELATIVE HUMIDITY

A composite humidity reader and humidify/dehumidify controller has been announced by Phys-Chemical Research Corp. In conjunction with appropriate humidification and/or dehumidification equipment, the Hygrocon, as the unit is called, is said to permit control of relative humidity in any given enclosure at temperatures as high as 180 deg. F. The PCRC Transducer, connected by cable to the Hygrocon, samples the atmosphere within a given enclosure. Humidity can be read directly on a 4 in. panel meter. CIRCLE NO. 256 ON READER SERVICE CARD.

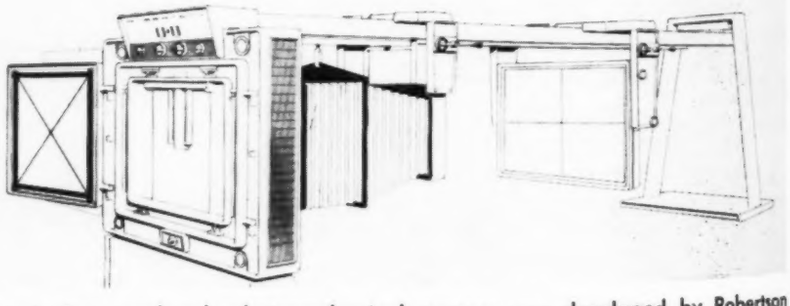
JUPITER OVERHEAD CAMERA

Development of the Jupiter overhead camera has been announced by Robertson Photo-mechanix, Inc. The camera is designed for the user whose requirements are not so great as can be provided by Robertson's heavier Tri-Color series.

Initial production of the Jupiter is in one size only, accommodating 31 in. by 31 in. vacuum holders and contact screens up to 32 in. by 32 in. Copyboard size is 44 in. by 34 in., standard, or 48 in. by 40 in., optional. Both screw drive and cable focusing are available.

The overhead track is a weldment, said to be designed to resist torque and deflection forces commonly responsible for misalignment.

Operating height of the Jupiter is low, facilitating control from the floor level. CIRCLE NO. 257 ON READER SERVICE CARD.



The Jupiter overhead, photomechanical camera was developed by Robertson Photo-mechanic, Inc. The camera is lighter than the company's Tri-Color series.

SMALL OFFSET PLATE STORAGE

A metal cabinet for storing small offset plates has been manufactured by Foto-Field, Inc. Called Stenfil Model

P, the cabinet may be used for storing up to 50 offset plates. It has separate pockets for negatives and features an index for locating plates. The cabinet requires 3 in. of shelf space. CIRCLE No. 258 ON READER SERVICE CARD.

REPRODUCTION TYPING PAPER

Typing paper for offset reproduction purposes has been developed by Fototype, Incorporated. A coating of fine white pigment is applied to a bond typewriting paper in the manufacture of Copy-Prep, as it is called, to produce a brilliant white surface compatible with carbon ribbon typewriting. Among the features of the paper are: A matte finish which does not reflect into the camera; a coating designed to receive white correction fluid, and a resin coating which is said to prevent rubber cement from bleeding through. CIRCLE No. 283 ON READER SERVICE CARD.

CASE STAMPING MACHINE PERFORMS MANY OPERATIONS

A compact gold and foil case stamping machine that can emboss, deboss, stamp and overprint the backbone and stamp a multicolor cover in one pass through has been announced by Dexter Company, Div. Miehle-Goss-Dexter, Inc.

The straight through, three station machine can handle a full range of case sizes from 6 in. by 13 in. to 11½ in. to 20¾ in. Using gold or colored foil, it can cover a design area up to 5 in. by 11⅝ in. on the backbone and up to 8½ in. by 11⅝ in. on the front cover. Rated speed is said to be from 25 to 60 cases per min.

Covers move automatically from the 14 in. hopper feed through the first two stations where the backbone is embossed, debossed, stamped and/or overprinted with foil or gold. At the third station, the front cover is stamped. Foil feed-up, dwell time, temperature and register controls are located at each station.

The stamping heads of the machine are air operated with individual impression press adjustments. One advantage claimed for the machine is that narrow width foil or gold running parallel to the head of the book may be used. The machine is designed for one man operation. CIRCLE No. 276 ON READER SERVICE CARD.

STACK TYPE PRESSES ADDED TO FILMPRINTER LINE

Two heavy duty, stack type Filmprinter presses have been introduced by Kidder Press Co., Inc. The presses are available with either 45 in. or 55 in. printing widths in four or six color models. All units are equipped with splicers that will handle film rolls with up to 20 in. diams. Additional equipment may be acquired to adapt these presses for printing on paper or laminated materials in rolls with up to 50 in. diams. CIRCLE No. 255 ON READER SERVICE CARD.

NEW
JET LINE TABLES

The nuArc Line-up Table is an invaluable precision tool for every graphic arts plant. All moving parts are precision machined and aligned at the factory. Straight edge assembly rides accurately and effortlessly on a heavy duty rack and gear mechanism. nuArc quality means more accurate register—reduced "make-over"—better and more efficient printing.

Register and Repeat is an exclusive nuArc feature that saves you time and guarantees accuracy of duplicates and make-overs. Simply set the stops that are standard equipment (six on front bar and six on side bar) for your original press sheet, press or bindery layout sheets. If it is necessary to make more than one copy, you are sure of duplicating your originals quickly and with perfect accuracy with the pre-set stops as your guide. As an added convenience, the bars can be removed and stored indefinitely with the stops in position. Extra bars and stops are available.

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For More Information Circle 148 on Reader Service Card

Jet Line light tables with contour design, enabling operators to sit closer to the work, have been announced by nuArc.

The Rouse hot metal pasteup band saw features automatic feed for accurate stripping of spaced out blocks of slugs.

JET LINE LIGHT TABLES AVAILABLE FROM nuARC

Jet line light tables featuring contour design, which enables the operator to sit closer to his work, are available from nuArc Company, Inc. The light tables are available in four sizes with glass area of 19 in. by 25 in., 25 in. by 32 in., 35 in. by 45 in. and 42 in. by 62 in.

Features of the tables include: Front operated gear mechanism that raises and lowers the top; non-glare glass said to absorb surrounding room lights; adjustable straight edges on all four sides; etched calibrations in 1/32 in. on two straight edges, and dropping down of entire light carrier for easy access to fluorescent lights. The steel constructed tables contain two large storage shelves and a locking utility drawer. CIRCLE NO. 270 ON READER SERVICE CARD.

PLASTIC SHEETING AVAILABLE

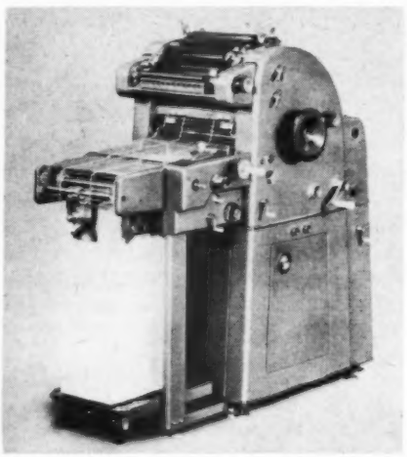
Theo. Hommel, Inc., has announced the availability of an opaque plastic sheeting said to be durable enough for permanent installations while its cost makes it practical for expendable applications. Hommel will market the sheeting in thicknesses of 0.004 in. and 0.006 in. in 50 ft. rolls that are 54 in. wide. CIRCLE NO. 262 ON READER SERVICE CARD.

STRIP STAGING LACQUER

Nutran strip staging lacquer for photolithographers and photoengravers has been announced by Henry P. Korn Associated, Inc. The lacquer is applied with a brush. Reportedly, it will withstand chemicals used in dot etching and toning down of dry plates and film. After etching is completed, the lacquer may be removed by stripping it from the surface. CIRCLE NO. 251 ON READER SERVICE CARD.

DELIVERY AND STACKER UNIT FOR DICK OFFSET PRESSES

A chain delivery and receding stacker attachment has been developed for all current models of offset presses manufactured by A. B. Dick Co. With



the attachment, it is possible to print copy to the edges and tail of the sheet without tracking it with ejector rollers. The gripper on the unit is ¼ in., the same as the impression cylinder of the small offset machines.

The delivery handles paper sizes from 3 in. by 5 in. to 11 in. by 17 in. The receding stacker has a standard jogging size of 4¾ in. by 4¾ in. to 11 in. by 17 in. Jogging guides are adjustable and copy is delivered face up. The receding stacker and the delivery handle 5000 printed 20 lb. sheets. CIRCLE NO. 275 ON READER SERVICE CARD.

HOT METAL PASTEUP SAW STRIPS BLOCKS OF SLUGS

H. B. Rouse & Co. has announced a band saw with automatic feed for stripping blocks of spaced out slugs to be used in hot metal pasteup of advertising composition units. After being properly spaced out on the galley, the slugs are covered with a strip of one-side adhesive transparent tape that is applied to the printing surface. The tape holds the slugs in position during the stripping operation.

The tape is then cut at short intervals to facilitate handling during the stripping operation.

Ludlow, Linotype and Intertype slugs can be stripped to 0.065 in. high or 0.155 in. high on the saw to prepare them for hot metal pasteup.

The block of slugs is placed between two metal locking bars on the saw bed. The automatic feed is said to assure an accurate cut by maintaining uniform pressure on the slugs while being cut. Work area is well lighted. CIRCLE NO. 280 ON READER SERVICE CARD.

ANNOUNCES TWO COUNTERS

Two new counters for industrial operations have been announced by Standard Instrument Corp. One is a photoelectric counter which is said to be capable of counting at rates up to 1000 per min. A push button reset, six-digit register is flush mounted in the front cover for reset to zero.

Also announced is a new predetermining electronic counter to be known as Tally Count Model TC-850. The counter is available in one, two, three or four digit models. It will operate from any external circuit or from op-

continued on page 93

This postage-paid card is for your convenience in requesting further information on any editorial item or advertisement in this issue of PRINTING PRODUCTION. Circle the number for any item or advertisement. Your request will be promptly sent to the manufacturer for which it is intended.

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City _____ Zone ____ State _____

⑤ Average total employment in plant at this address:

- ☐ 10-19
- ☐ 20-49
- ☐ 50-99
- ☐ 100-249
- ☐ 250-499
- ☐ 500 or more

⑥ Check the ONE classification that most nearly describes your company:

PRINTER: (including commercial, trade and private plants)

- ☐ Letterpress Printer
- ☐ Lithographer
- ☐ Lithographer and Letterpress Printer
- ☐ Gravure Printer
- ☐ Flexographic Printer
- ☐ Screen Process Printer
- ☐ Letterpress and other printing, except Lithography
- ☐ Lithography and other printing, except Letterpress

TRADE PLANT:

- ☐ Composing
- ☐ Engraving (both Letterpress and Gravure)
- ☐ Lithographic Platemaking
- ☐ Engraving and Lithographic Platemaking
- ☐ Duplicate Platemaking (including electrotyping, stereotyping, rubber and composition plates)
- ☐ Binding
- ☐ Converting

NEWSPAPER:

- ☐ Newspaper with commercial printing department
- ☐ Daily newspaper, no commercial printing department
- ☐ Weekly newspaper, no commercial printing department

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Printing Production Magazine
1276 West Third Street
Cleveland 13, Ohio

Reader Service Department

tional plug-in auxiliary input equipment. Maximum counting rate is said to be 3000 per min. CIRCLE NO. 287 ON READER SERVICE CARD.

RECORDER COMPUTES AND PRINTS JOB TIME

A time recorder for computing time worked by an employee on a particular job has been introduced by Cincinnati Time Recorder Co. Known as the Compu-Tymer, the unit is designed for plants that keep daily cost records by job and employee.

In operation, an employee inserts a standard time card in the unit and pushes a lever. This imprints a circle with eight hours, marked in tenths, designated on the rim. When the job is finished, the card is again inserted and the out lever pushed, imprinting the amount of time worked. CIRCLE No. 260 ON READER SERVICE CARD.

HYDRAULIC ACTUATING UNIT INTRODUCED BY STAR PARTS

Star Parts, Inc., has introduced a hydraulic actuating unit for the Star Quadder. This unit is an application of basic hydraulics providing actuation of vise jaws during quadding operations.

The unit consists of master and slave cylinders, pistons, and a reservoir with

built-in pressure valves. Vise jaw pressure is factory set, according to the company. An outboard cam operates the hydraulic unit to move the jaws inward and outward as the casting cycle of the linecasting machine requires. The actuating unit is a part of all current Star quadders and can be applied to quadders of previous design. CIRCLE No. 288 ON READER SERVICE CARD.

VALVE ELIMINATES CLOGGING IN COLLATING MACHINES

A new three-way solenoid valve designed to eliminate paper lint clogging when providing vacuum for the activator of collating machines has been developed by Automatic Switch Co. In operation, the valve alternately supplies and then breaks vacuum to suction cups which pick up and stack sheets of paper.

Made of an aluminum body with a Hycar disc, the valve has an aluminum seat at one orifice and stainless steel at the other. It is supplied for air only in ⅜ in. N.P.T. pipe sizes. A special open frame solenoid enclosure is also furnished. CIRCLE NO. 272 ON READER SERVICE CARD.

Time worked by an employee on a particular job is computed on the Compu-Tymer, manufactured by Cincinnati Time Recorder Co. The employee inserts a time card in the unit and pushes a lever when he starts a job. The out lever is pushed when the job is finished, computing the time worked.

NEW FLEXOGRAPHIC INKS

A new series of flexographic inks specifically designed for printing business forms has been developed by General Printing Ink, Div. of Sun Chemical Corp. The inks are available in colors and a full range of both water and alcohol base formulations. Also available are newly developed fluorescent water base inks for flexography. CIRCLE NO. 266 ON READER SERVICE CARD.

TWO BOOKBINDING MACHINES INTRODUCED BY GANE

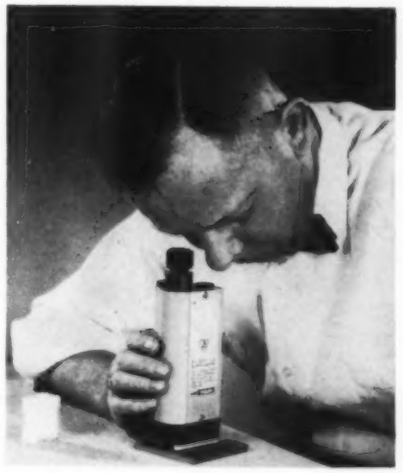
Two Brehmer bookbinding machines have been introduced in the United States by Gane Brothers & Co. One of the units is the Brehmer semi-automatic book sewer which handles signatures up to 14 in. by 9½ in. at a speed which is adjustable between 65 to 100 signatures per min.

The sewer is equipped with automatic pasting and thread cut-off. Two models of the sewer are available—a standard, which will handle from one to six stitches per signature and a special, equipped to perform seven stitches per signature and which may be used to sew over tapes or on super.

The automatic stitcher, fitted with four feeding stations and two stitching heads, is said to accommodate work from 6 in. by 4 in. to 13¾ in. by 9¾ in. Distance of the stitch is adjustable from 2⅜ in. to 8⅜ in. on centers; maximum thickness of the stitch is 5/32 in. CIRCLE NO. 250 ON READER SERVICE CARD.

SCRATCH DEPTH GAUGE FOR MEASURING ETCHING DEPTH

Bausch & Lomb, Inc., has announced development of a scratch depth gauge which may be used to measure etching depth for photoengraving. Measure-



ments to an accuracy of ±0.0001 in. or 5% of the depth, whichever is greater, can be made for indentations with depth from 0.0002 in. to 0.016 in. Also widths from 0.001 in. to 0.050 in. can be determined to ±0.001 in. The same range applies to measurement of raised portions. The gauge also shows the contour of indentations.

The optical system has been designed for portability from one plant area to another. The depth gauge is battery operated, although a transformer is available for use with 115 V., 50-60 cycle a.c. power.

The base is removable for substitution of special adapters for inspecting curved surfaces. CIRCLE NO. 264 ON READER SERVICE CARD.

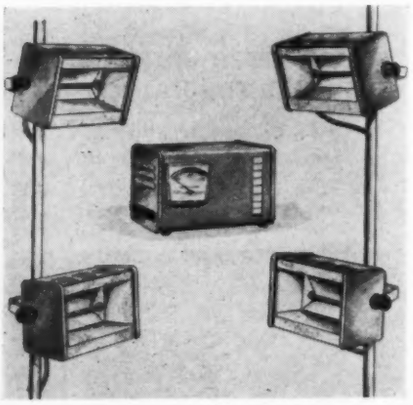
NEW XEROGRAPHIC PLATE

Xerox Corporation has developed a faster Xerographic plate which it claims makes possible high quality reproduction of halftones, photographs, large solid areas and line work. Used

with Xerographic master-making equipment, the new plate provides a substitute for film negatives in preparation of offset paper and metal masters. CIRCLE No. 285 ON READER SERVICE CARD.

IMPROVED COPYBOARD LIGHT USED IN ASCORLUME SYSTEM

American Speedlight Corp. has introduced a new line of incandescent Ascorlume equipment for improved copyboard lighting. The General Electric Quartzline lamp, which has been



incorporated into the Ascorlume system, utilizes the iodine cycle principle to eliminate bulb blackening. The light output of the Ascorlume lamp does not decrease during its rated life, according to company officials. The lamps are rated at 500 W. when operated at 120 V.

The quartzline lamp is mounted in the Ascorlume light unit which serves as a reflector. It is said that the housing is designed to stay at a safe temperature and the light unit fuses the lamp for protection against light burnouts.

Adjustment of voltage to provide desired light output and color temperature is accomplished by the Ascorlume power unit. Adjustments are obtained by a system of push button controls and the unit features an expanded scale voltmeter. The unit is small and compact enough to be mounted in the most convenient position possible, the company states. CIRCLE No. 289 ON READER SERVICE CARD.

NEW ALUMINUM OFFSET PLATE

A presensitized aluminum offset plate which reportedly may be used on any offset machine for producing high fidelity reproductions for 25,000 or more impressions, has been announced by A. B. Dick Co.

Known as the 8000 Series long run plate, it is said to be suitable for close register work and may be filed and rerun. The new plate is claimed to provide a wide operating latitude in processing and running. CIRCLE No. 263 ON READER SERVICE CARD.

FALCO OFFSET BLANKET

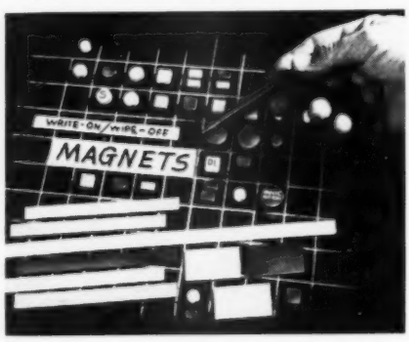
A Falco blanket for offset lithography designed to meet requirements of higher press speeds and new printing surfaces has been developed by General Printing Ink Div., Sun Chemical Corp. According to the company, the blanket has worked well in tests with all litho ink formulations, including some not yet available commercially. CIRCLE No. 281 ON READER SERVICE CARD.

SIX LITHO COLOR INKS

Chromatone Printing Ink Div., Polychrome Corporation, announces that its Econo lithographic ink is now available in six new colors, specially formulated for offset printing on newsprint and similar stock. The inks are available in yellow, orange, red, blue, green and brown. CIRCLE No. 267 ON READER SERVICE CARD.

COLORED MAGNETS FOR MAGNETIC SCHEDULE BOARDS

Magnetic indicators in many sizes and shapes for use in various types of magnetic scheduling and charting op-



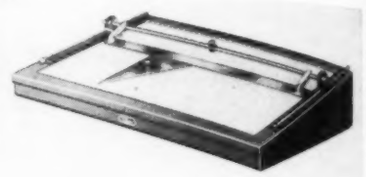
erations are available from Rol-a-chart Div., Wm. A. Steward Co. The magnets are finished with a write-on/wipe-off surface that permits writing messages on them with a special marking pencil. Flexible strip magnets in any length and shape are available. CIRCLE No. 284 ON READER SERVICE CARD.

HYDRAULIC WEB GUIDE

A new model, PH-55, hydraulic web guide for paper, foil and plastic webs has been announced by Stanford Engineering Co. Reportedly, the control makes web corrections possible to within ±0.010 in. The power unit is integrated, containing an oil reservoir, oil pump, motor and air source for pressure or vacuum sensing head. Vacuum, pressure, mechanical and photocell web positioning heads are available with an adjustable sensing head bracket. The unit is said to eliminate chattering and hunting problems. CIRCLE No. 290 ON READER SERVICE CARD.

GEAR TRACK REGISTER UNIT FITS ALL LIGHT TABLES

A precision gear track register unit custom-built to fit any type or size light table has been developed by Fos-



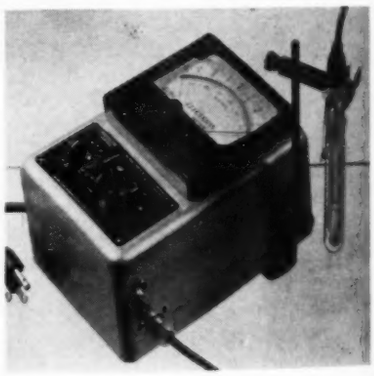
ter Manufacturing Co. It is designed to convert any light table or drawing board into a precision engineered register table, according to the sponsor. The gear track unit is easily installed and is available in 12 standard sizes and any custom size. A 12 in. stainless steel triangle is also included. CIRCLE No. 271 ON READER SERVICE CARD.

MAGNETIC FILTER TRAP FOR RECIRCULATING INK LINES

A combined ferrous trap and filter for recirculating ink lines has been developed by Eriez Manufacturing Co. The Eriez magnetic filter screen trap Model L-2-F removes iron contamination onto a tube magnet inside the sleeve filter. The device is said to be suited for installation on gravure and flexographic presses. Magnet and filter can be removed for cleaning. CIRCLE No. 291 ON READER SERVICE CARD.

PORTABLE pH METER

The Electrion II line-operated, portable pH meter with a ±500 millivolt scale has been developed by Sel-Rex Instruments Div., Meaker Company. According to the sponsor, accurate



measurements from 0 to 14 pH at 15 deg. C. to 70 deg. C. may be obtained from the standard full-range combination electrode. Several types of combination electrodes, including those for high temperatures up to 130 deg. C., are also available. Standard features include: Constant-reading meter, reference pointer, easily connected solid ground and 115 V. line operation. CIRCLE No. 259 ON READER SERVICE CARD.

PRINTING INDUSTRY PATENTS

Covering patents issued during the past three months.

All new patents for the printing industry are reported exclusively for PRINTING PRODUCTION by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issued each week. PRINTING PRODUCTION is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trademark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Composing Room:

Type Metal Remelting – System involves heating and moving type metal from a melting pot area to casting stations. Metal is conveyed through a pipe line, heated by controlled electrical current. The pipe line is connected to the secondary winding of a transformer to establish a special load circuit. Different preselected numbers of primary coil turns are connected across a voltage source in circuit interrupting sequence by a control circuit. Thus the voltage induced in the load circuit is capable of being controlled relative to the voltage across the primary coil. No. 2,981,818 by William J. Trabilcy, assignor to Electric Pipe Line, Inc.

Predetermined Torque Release Quoin Key Wrench—This quoin key torque wrench regulates the maximum amount of pressure which the user can apply to a quoin when locking up a letterpress form. The tool also eliminates the possibility of damage to the quoin by the over application of pressure on the quoin key. No. 2,982,159 by Harold Schweriner, assignor to Simco Company.

Platemaking:

Process for Making a Master Offset Plate—A master offset plate, claimed to provide thousands of legible copies, is made by contact photoprinting a translucent or transparent original. It is produced by tanning a hydrophilic colloid with a diazo compound with the aid of actinic light. No. 2,982,648 by Clifford E. Herrick, Jr., and Peter T. Woitach, Jr., assignors to General Aniline & Film Corp.

Unit for Shaping and Bonding Laminated Printing Plates—This invention provides a method for shaping and bonding together laminae to form a laminated semi-cylindrical printing plate for a rotary press. The unit may be quickly adapted for use on printing plates of different diameters. No. 2,982,332 to Russell U. Garrett.

Printing Presses:

Printing Unit for Web Presses—The design of the roller mountings of this unit simplifies the removal and replacement of rollers without the removal of bearing caps or other roll trunion mountings. Shafts which support these rollers permit returning removed rollers to the unit without impairing initial adjustment. No. 2,982,204 by William A. Roehm.

Printing Ink Pump – This compartmented ink pump has a means for reg-

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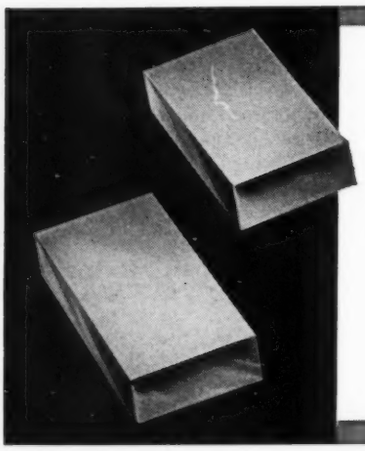

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ulating and changing ink supply. The pump is one which provides measured quantities of ink by a number of pistons. One piston is provided for each column, ink being supplied in different colors to various columns or pages. A diaphragm is coupled to an operating member of a micro-switch to maintain a desired level of ink within the pumping mechanism as measured by the weight of the ink on the diaphragm. No. 2,977,875 by Charles A. Harless, assignor to R. Hoe & Co., Inc.

Web Tension Control – This system maintains at constant value a web being run from a reel mounted in a reelstand into a printing press. A web supporting roller is capable of lateral movement, and a linkage interconnecting the ends of the roller urges it in a web tension direction. Unevenness in tension between the longitudinal edges of the web cause lateral cocking movement of the roller tending to equalize the tension between the edges of the web. No. 2,979,280 by Frederick Wallace Ralph, assignor to Witton-James Limited.

Impression Cylinder Pressure Setting Mechanism—Invention provides means for adjusting pressure between bed and cylinder on letterpresses. Mechanism permits preloading some adjustable parts against the force of impression. No. 2,982,206 by Henri E. Peyrebrune, assignor to Miehle-Goss-Dexter, Inc.

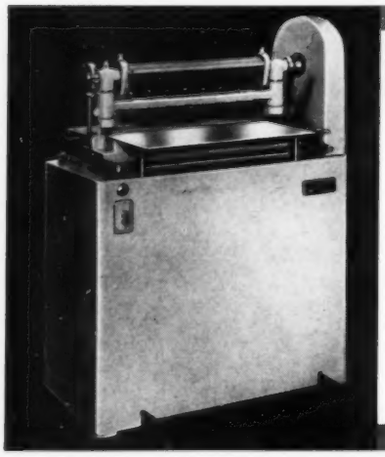
Gravure Press Splice Trip—On rotary gravure printing press where web is squeezed in passing through the press, this trip is used to relieve pressure when meeting a splice in the web. The probe for detecting such splice or abnormal thickness in the oncoming web may be mechanical or electrical and may employ mechanical, electrical or other control for the transient relief of contact pressure on the web. No. 2,974,587 by Fulton H. MacArthur.

Ink Application – Film-forming lacquering layer and printing ink can be applied in one operation, eliminating special drying time for the printing ink. Apply to a backing material a layer of wet steam-settable printing ink formed of a pigment, a binder and a binder solvent which is miscible in all proportions with water. Apply on top of the ink layer a film forming layer containing water in a quantity sufficient to precipitate the binder. No. 2,974,058 by Lennart Pihl, assignor to Research Aktiebolag.

For Web Control—A device controls vibration or flutter of the web from an expiring roll preparatory to severing and pasting it to a replacement roll. The structure consists of a flutter bar pivotally supported by the cutting element of a web supply mechanism. It is automatically movable with the cutter from a folded position out of engagement with the web to an extended position engaging the web at a location closer to the expiring roll than the cutter. Thus flutter of the web is minimized as it leaves the expiring roll. No. 2,979,279 by Miles F. Krestan and Robert E. White, assignors to Triangle Publications, Inc.

Backing Strips for Platen Presses – These backing strips are attached firmly to the tympan sheet of a platen press for cutting or perforating operations. The strips do not require auxiliary parts or adhesive for securing in operating position and may be manufactured in indefinite lengths to fit specific jobs. No. 2,982,208 to Harry S. Boyd.

Imprinting Plate Cylinder—This cylinder on which an imprinting plate may be attached is used for imprinting lengths of continuous form stationery. An authorized signature plate is quick-



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ly changed, obviating the need to replace the entire cylinder. Changeable segments of a circumferential series of imprinting plates are provided to vary the imprinting subject matter. No. 2,978,980 by Jack J. Kessler, assignor to Uarco, Inc.

Flexible Printing Plate Assembly—This assembly is provided on the rear side with a flexible layer of magnetizable material which permits securing the printing plate to a magnetic printing cylinder or magnetic printing base. The layer of magnetizable material consists of short bar elements, placed beside each other in overlapping position. No. 2,982,207 by Reidar Stromme.

Rotogravure Printing—In printing paperboard for folding cartons, moisture is applied to the web to affect the surface compressibility of the web. This modifies its absorptivity for eliminating snow-flaking, worming and mottling. Hot moisture is applied to the printing surface in an area which contacts the rotogravure cylinder within a fraction of one second. A jet of dry live steam uniformly provides moisture and the jet is controlled in relation to the speed of the advancing web. No. 2,980,015 by Thomas G. Zentner and Richard L. Boggs, assignors by mesne assignments, to Diamond National Corp.

Binding, Cutting, Perforating:

Automatic Collator—This device provides for a fully automatic, high speed collator requiring little or no attention on the part of the operator with the exception of reloading, during which the machine may remain in full operation. A detecting mechanism stops operation of the machine when the pick-off and deposit mechanism fails to engage a sheet from one of the stations. No. 2,982,542 by Richard H. Colwill, assignor by mesne assignments to Farrington Business Machines Corp.

Sheet Gauging and Detecting Device—This sheet gauging device stops a collator in the event of a missed sheet or if a thick sheet or several superimposed sheets pass through the gauge. The detector can be rendered inoperable for an intentional gap in a stream of sheets so that such gap will not stop the machine. No. 2,982,545 by Luis Mestre.

Clamping Pressure – The clamping pressure of a cutting machine is automatically adjusted before the cutting stroke is begun. This is accomplished by means of an arrangement of photocells and magnetic switches. No. 2,971,417 by Rolf Hermann Chlebus, assignor to VEB Leipzier Buchbindereimaschinenwerk.

Processing Flat Stock—Cards and papers, ornamented or unornamented, may be sent in predetermined positions to cutting or slitting unit. They are then passed to a stacking apparatus which neatly stacks the segments into separate piles. All of the mechanism is fully automatic. Suitable hand actuators are also provided by which supports for the feeding and stacking operations may be actuated. No. 2,971,415 by George A. Gibson, Jr.

Book Back Label Holder—A label holder is adapted to be permanently secured to the back of a book. The body of the device is transparent and serves as a window for displaying the label. Strips of adhesive along each edge of the label holder secure the holder. No. 2,977,698 by Coleman Chamberlin.

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Litho's Problem

(CONTINUED FROM PAGE 39)

pressed by William S. Kemeny, Vernels Service, when he stated: "For us it is far more economical to make our own plates and have (control of) everything under our own thumb."

Operating with five cameras, six vacuum frames and plate whirlers and doing its own plate graining, Continental Lithograph Corp. feels it has complete plant facilities and the volume needed to support a platemaking department. "Most trade plants do not have the capacity to produce plates for us and therefore we make our own," a company representative stated.

The newly enlarged and remodeled platemaking department at William Feather Co. is typical of the importance that some firms place upon having this type of facility.

In a process with facilities for art preparation to press work there must be complete control over all production departments, stated Dick McAllen, Feather's litho superintendent.

Approximately 55% of the Cleveland firms questioned indicated they made color process as well as simple color and black and white plates within their own plants. The other companies confined operation of their plate departments to either simple color and/or black and white work.

Presensitized plates were the most popular for short production runs although several firms indicated they were also used for long runs. In some plants presensitized plates were used exclusively; however, these firms did primarily black and white and simple color work. Deep etch plates including aluminum and copperized aluminum were the most popular for long runs, especially where process color plates are involved.

Utilize Both Sources

Several companies reported they utilize both trade shops as well as plate departments within their respective plants. George Schultz, secretary-treasurer, Great Lakes Lithograph Co., stated that approximately 50% of the plates used are made within the plant. The remaining 50%, including all of the color process and overflow work, is sent to trade shops. Schultz cited that by making a portion of the plates needed the firm has control over its own plate department, can regulate the workflow and get more out of the department. Great Lakes makes its own plates as a service to the plant, he added.

Colorcraft Corporation in nearby Solon, O., makes plates for all of its routine jobs but uses the services of trade platemakers for color process plates, according to A. F. Marsh, president. Marsh stated that this puts the responsibility on the platemaker and felt that the trade shops can afford to have better craftsmen and equipment for doing color process work.

Lake Shore Press, Inc., is limiting its platemaking operations to less complicated work. "Remake of plates becomes simple and down time is reduced when another plate is necessary," John A. Kall, presi-

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dent, stated. "We think this will be an assist to expedite production," he added.

Cleveland firms dealing exclusively with trade platemakers do so for a variety of reasons. Typical of many answers is the one from Tri-Arts Lithograph Co., Inc., reflecting the expense involved in equipping a plate department. Jack Braun, president, said: "To equip our own plate department for process work would be very costly. It would be idle three days out of each week unless we changed our type of business, which consists of fairly long runs of process jobs."

Top Competitive Service

The firm utilizes the services of two platemakers to handle its four color process work and two others to handle the balance. "We always have at hand top service from one shop or the other at a competitive level," Braun added.

Service, price and better plate quality were the reasons given by Roland M. Kraus, president, Ontario Printers, Inc., for obtaining plates from a trade shop. "The volume needed to support your own plate department outweighs the advantages of owning your own," Kraus said.

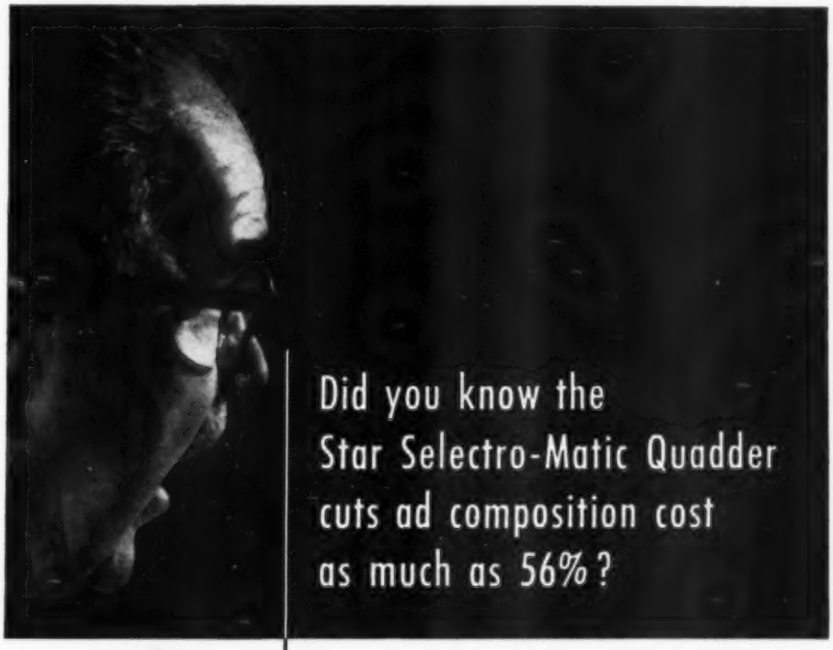
Don Barber, the owner of Adcraft Printing Co., commented that "we can go to more than one (trade platemaker) if needed. They undoubtedly have more skilled help, more equipment and do (the work) quicker and better." He recommended first having enough work volume to support installation of a plate department.

Joseph A. Chinnici, superintendent, said that Lezius-Hiles Co. "use the services of five platemakers, and at our peak periods we use all of them. We have no down time and in this way we don't worry about idle time." Central Lithograph Co. also uses five or six platemakers at the same time when a large number of plates are needed the same day. Central's president, John Kuentz, stated that "platemakers are a highly paid branch of the industry and must be kept busy or else they become too costly. There is no way to control the class of work," he added. "One month we require large amounts of color separations and the next, all line and halftone."

The investment involved and the tremendous amount of work required were reasons given by Louis DiPadova, owner of Allied Printing & Lithography Co., for obtaining plates from trade shops. More men would be needed for camera and stripping operations with no guarantee of obtaining good plates, he said. In the long run DiPadova believes the firm to be further ahead to have plates made by outside trade shops.

One question asked Cleveland litho printers dealt with advice regarding installation of a platemaking department in a newly formed offset plant. Many thought it best to wait until the volume of work justified such an investment. Others suggested buying negatives and camera work from trade shops and then making the plates. The owner of Cleveland Offset Press believes a plate department is a must for making simple plates while utilizing a trade shop for exacting plate requirements.

Sol D'Allesandro of Horn & Norris, Inc., said that in the type of work requiring short run plates it would be best for a firm to have its own



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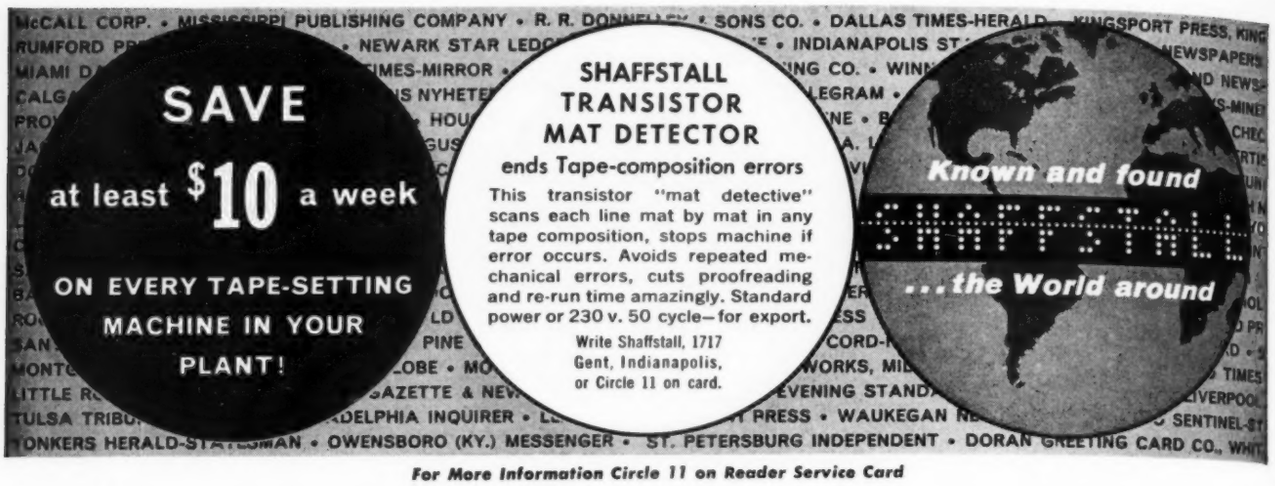
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plate department. He also added that if a firm had a big backlog of work and long runs then outside work from a trade shop could be scheduled more conveniently and economically. George Schultz of Great Lakes Litho suggested that press equipment be obtained and clientele built up before developing service features such as a plate department. However, he continued, if adequate funds and qualified personnel were available a firm could proceed with installation of a plate department.

"A must!" That was the way William Feather Co.'s Dick McAllen felt about installing a plate department in a new firm. He said there was no comparison in buying plates from outside trade shops as against having the needed facilities at one's fingertips to meet production schedules.

And what of the trade platemaker —what advantages does he offer the litho printer in making his plates? Does he think it economical for a company to set up its own plate department? Would such a company experience difficulties in obtaining qualified, trained workers?

John McSweeney, president, American Lithograph Plate Co., commented that his firm offers "speed, service and quality such as is derived by having both the caliber and quantity of men and equipment which the individual printer could not afford to maintain regardless of his size."

Question of Economy

Basically, McSweeney does not think it economical for a company to operate its own plate department. He added: "However, if a printer has an open shop where men can float, has small equipment and generally enough time on a job then he can keep more of the dollars in his own plant. True and careful cost analysis and control will generally rule this out, however."

Better knowledge in doing a job and peace of mind for the lithographer were two of the advantages offered by Cadillac Litho Plate, Inc., according to Harry A. Peters, president. Peters commented that there are too few experienced workers in the Cleveland area and everything depends on the trained worker in setting up a plate department.

Jack Bencek, owner of Artrite Lithoplate Co., stressed service as one of the primary advantages his firm offers the litho printer. He feels it is faster for a firm to buy plates from a trade shop rather than try to make them, although he doesn't believe it is any cheaper. "The lithographer must be big enough to handle a large volume of work or else his production schedule is tied up if several jobs are in the plant at one time," he said.

A small printer doing all offset operations—*i.e.*, press, platemaking, camera and stripping work—cannot compete with a trade shop in the platemaking phase according to Wayne Gasper, owner of Wayne Lithoplate Co. The small printer's loss of time in platemaking is very high, he said, while trade shops are geared for this type of work utilizing higher skilled men than the litho printer has available.

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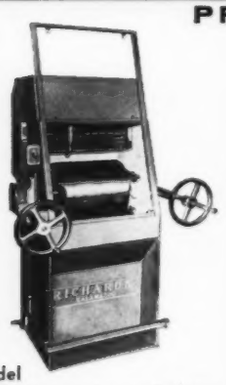
Model M2-BT For semi-curved plates

Model PMRS Radial arm router. 3 in 1 machine Router-Mortiser-Planer.

Model M1 BT Tubular Router

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"Cleveland is overcrowded with platemakers for the size of the printing industry," Gaspar stated. "Competition is very keen and many small printers are making their own plates while buying the negatives and doing their own layouts," he added. Wayne Litho offers very good service, he said, because competition is so high. "All good platemakers bend over backward to get a job out."

He continued: "Printing salesmen are promising fantastic deliveries which make it hard for trade platemakers and other craftsmen. There is no backlog of business and everyone is looking for price. Today on 98% of all work you have to give a quote, whereas 10 years ago only about 10% of the work required this information."

Competitive Situation

Commenting on the competitive situation, Artrite Litho's Bencek said that "too many trade platemakers are willing to work for nothing. The only way to get new customers is to go out and cut someone's throat. Some shops work all night to get a job out at a price way below what you could do it for. Soon they begin to hurt you," he added.

A representative of Copifyer Lithograph Corp. stated there was too much variance in pricing and costs and that background and experience is lacking in Cleveland trade platemaking shops. "The small trade shops are too competitive for the good of the over-all trade," he said, "and engage in a great deal of price undercutting."

He wondered that if a firm doesn't correctly know basic costs, how then do they know the proper techniques and have the knowledge to do the job accurately?

A Great Lakes Litho official feels that competition is terrific throughout the printing industry as a whole and not just in the platemaking phase. The Cleveland area doesn't seem to have the ability to bounce back from business slumps as other areas have done after the latest business slumps, he added.

"What the Cleveland printing industry needs," said S. G. Swanciger, co-owner of Swan Litho, "are big quality printing houses to recapture some of the accounts that used to be here in town. The big accounts left and are being done in other cities.

"The larger shops that formerly had this type of work are taking work that previously went to the small shops," he stated. "It's a rough competitive situation because there is not enough business to go around. Something is needed to draw the printing business back into Cleveland," he added.

There are, naturally, reasons supporting both alternatives to the problem of how a litho firm should obtain its plates. In many cases the type and volume of work produced play important roles in arriving at a final decision.

Companies with the production capacity and work volume will probably establish plate departments of their own and still rely upon the trade platemaker. Smaller firms may look to trade shops for their entire plate supply, or at least that portion involving process color. Whatever method a company finally selects will undoubtedly be dependent upon its economic status and production capacity.

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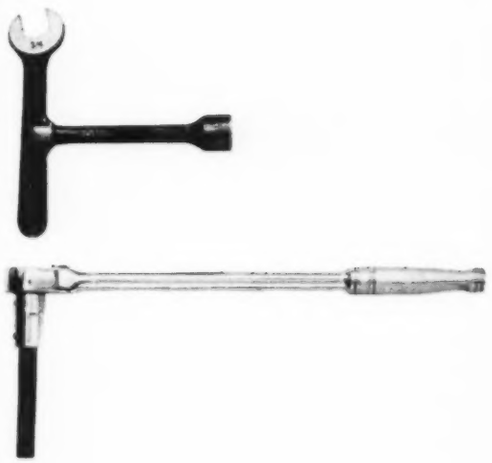

just two tools...are all you need to make operational adjustments on the Hoe Colormatic*. Two tools to silence the unit, or silence individual printing couples, or change direction of cylinder rotation, or adjust variable stroke of ink drums, or set printing impression. This planned simplicity is just one of many great Colormatic features.

*Trademark

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910 EAST 138TH ST.
NEW YORK 54, N.Y.
HOE

Training at the Top

(CONTINUED FROM PAGE 51)

salesman, bookkeeper, shop manager, works and thinks as closely like the owner as he can make them. Personal contact is very close. So the organization is really the owner in several bodies.

This rudimentary form of organization can work until the company employs as many as 200 or more people. Most successful established printing companies are in this stage of development today. But continued growth inevitably brings on further changes. When this intimate group can no longer cope with the load of management work, a more extensive organization has to be built. And here the real trouble starts.

Most Critical Transition

Growth in any organization, whether it be a printing company, steel corporation, church social group or government, requires management to regroup and reorganize periodically to get set for the next phase of development. The most critical transition, however, seems to be the point at which close personal contacts alone cannot make all the connections that are required.

"Good work men! Now, about that other RUSH job that came in this morning. . ."

Our sample organization is now too big for management people to operate strictly as personal assistants to the owner. Before, assistants could find problems, analyze them and take them to the top man for a decision.

Now, however, the owner doesn't have time to handle every problem. More and more of his time is required for policy making and planning. He must rely on others to get the daily work done under his general guidance, and he must delegate decision making power to his subordinates. They in turn must operate their own areas semi-independently while coordinating with other departments.

Making important decisions on your own responsibility, planning and directing the work of other people, coordinating it with that of other groups—all these are human skills requiring plenty of good judgment and experience. Yet printers often reach this crucial transition point with an unprepared staff.

When the trouble comes, the signs are often baffling. The company may do more business than ever, yet manage to lose money instead of showing a profit. The harder everyone works, the worse things get. The owner adds more people to help his assistants, but less seems to get done.

Once the trouble has set in, most

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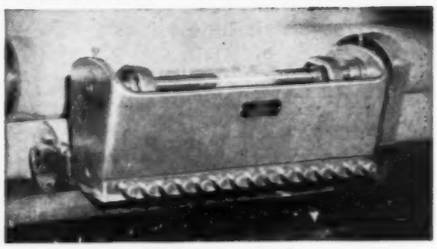

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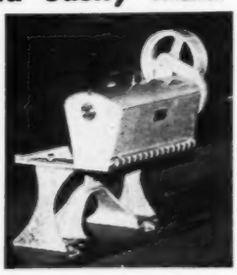

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managements act frantically to make up for lost time. They look for ready-made top executives outside the company, and they embark on changes within the organization. Above all, they want quick relief.

Answer is Training

How to avoid this predicament? The answer is management training. And the best kind of training is a comprehensive, permanent program actively led by top management.

The mechanics of a management training program could be similar to the supervisory training plan detailed in the second article in this series (see PRINTING PRODUCTION, June 1961, page 96). Meetings and outside readings are used to present subject matter, and trainees are encouraged to try their new knowledge in on-the-job situations. Then, results are discussed and evaluated.

A management program, however, should emphasize individual effort and initiative to a much greater extent than a supervisory program does. Special projects can be used heavily here. Trainees should carry out their own investigations and reach their own conclusions and recommendations, which can then be reviewed by higher management. Any number of live projects can be used for training—planning and installing a cost system, production control system, new equipment, methods improvements and an inventory control system.

For most companies, a management training program requires considerable time before results show up. Starting from scratch, trainees will have a lot of basic spade work to do. The entire program can be described in three basic phases: Educational, application and withdrawal—

Educational Phase—Obviously, the way to start any project is to first learn as much as possible about the subject. If management is to select new techniques from the many available alternatives, it must first know what those alternatives are.

The educational or learning phase takes time, and management should be prepared to invest in it properly. A person never learns all there is to know about a subject from the first book he reads. He must search for information, mull it over, perhaps restudy it, then find other viewpoints on the subject and digest them also.

Impatient managements, however, often cut short this learning phase to rush a project into operation. The result is either total failure of the project, or a painful and costly learning of what was skipped while trying to keep the project alive. If modern managers have learned one thing, it is that sound and thorough planning pays for itself many times over.

To the trainees, good sources of information are vital. Also, they take a lot of prospecting to locate. Printers should, of course, cover their association meetings and conventions and read their trade magazines. They should also visit other plants at every opportunity.

But perhaps more important, progressive printers should look outside the printing industry at other industries. They have already developed ideas that will solve many of our problems. All printers have

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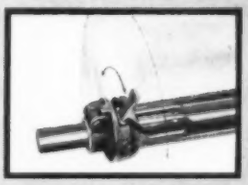

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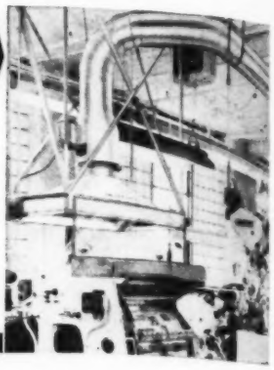

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to do in some cases is adapt them slightly to their situations.

Reading material should be sought in libraries, schools, and general management associations such as the American Management Assn. and the National Assn. of Manufacturers. General management magazines should be on printers' desks.

Seminars and training courses can be valuable to trainees if they are used as part of an integrated program. These are available through universities and associations.

Finally, trainees should be encouraged to make acquaintances outside the company and maintain these contacts. Not only do these contacts stimulate trainees' thinking, but they are also an excellent grapevine source for getting the newest ideas, perhaps before competitors.

Application Phase—This usually involves the specific planning and installation of a project or the trial of newly learned principles on the job. It is here that management is most sorely tempted to abandon the whole thing.

Making any change in the way things are done will inevitably cause some confusion. At times it will seem that everything is falling apart. It is here that new people mushroom on the payroll. They are employed in information gathering and processing jobs which are nonproductive in the eyes of many printing managements.

Management must stick to its guns through this period to give the new project a fair chance. At this point panic on the part of management is the worst enemy of new projects. Changes will always have to be made after new ways are put into operation—probably nothing new has ever worked perfectly the first time. But changes should be made only after a calm, rational review of the situation.

Where trainees are taking on greater responsibility for the first time, top management must use patience. These people will not do so good a job as top management could—they don't have the experience yet. They will make mistakes that top management will simply have to take. If the trainees are well chosen, they will learn from their mistakes.

Withdrawal Phase—As trainees settle into their new responsibilities, or a new system takes hold, top management must retire the old way of doing things. Amazingly enough, sometimes top managements fail to do this, causing chaos in the lower ranks.

As new people and systems take over the day-to-day work, top management must turn to its new jobs—planning for the future and guiding their subordinates without interfering with them.

What happens when all the management people are trained and all the problems are solved? Unfortunately, by that time management will have a new set of problems and a need for new skills. It will be management training that will continue to provide the necessary executives.

To the printer who will grow, competent executives are indispensable, but they are also extremely scarce. Management training, including that of top management, is a matter of survival. ⊙

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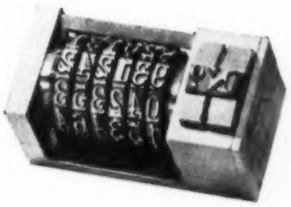

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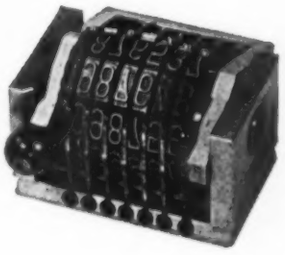

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Craftsmen Clinic

(CONTINUED FROM PAGE 64)

attempted. Included in the unsuitable list is the vast majority of work designed by advertising agencies and which does not fit into the general category of web offset printing.

In the practical utility list for which offset is suitable, Bassett said publications of all types in which there is a standard size, books and catalogs, run very well. It is his opinion that more and more of this type of printing will be going to web offset.

It is the speaker's understanding that paper spoilage in web offset has been mentioned all the way from 4% to 110%. As in sheetfed printing, a percentage figure is misleading for web offset. Where long runs are being produced, the spoilage percentage is far down the line. The figure of 4% sounds low. Based on general observation, Bassett stated that from 8% to 12% seems more in line.

"One interesting possible development for web offset," continued the speaker, "is printing by indirect or dry offset." As the result of an experimental run in which a Du Pont plate was used to print without water on a two-unit offset press in a Chicago printing plant, he said: "We were certainly encouraged by what we saw. We look forward to further testing and development along these lines."

Web Offset Dryers

During the course of his address, Ben Offen, president, B. Offen & Co., stated web drying and cooling equipment preferentially should be placed between the last press unit and the folder. The speaker explained that it is necessary to engineer a dryer installation because of the different kinds of paper stocks used in web offset printing and the varying speeds of the web itself. Obviously, the drying requirements for 100 lb. stock would be different than for 20 lb. stock.

Offen stated that dryer installations extend upwardly to 10 or 12 ft., and in some cases up to 15 ft. length. Press speeds also have been increased to 800 f.p.m. in most cases and up to 1200 f.p.m. in a number of cases.

Among the requirements for efficient dryer equipment, Offen included: (1) The dryer should be preheated to permit quick press starts and reduce blistering risk; (2) One should be able to print and dry at crawl speeds of 20 f.p.m.; (3) Dryer should be equipped with combination of flame and air using the Multi-Stage principle to heat the ink solvents by gas flame, and by using high temperature high velocity air knives to scrub the solvent vapors from the paper pores; (4) Instantaneous movement of flame burners from the web at the press stop to avoid fires or brownouts; (5) Use temperature control for each web pass to suit the job being run, and (6) Maintain ample exhaust to draw fumes from the dryer.

Cooling of the web after passing through the dryer is necessary to set the resin in the ink to permit travel of the web through the folder or sheeter without smudging or offsetting.

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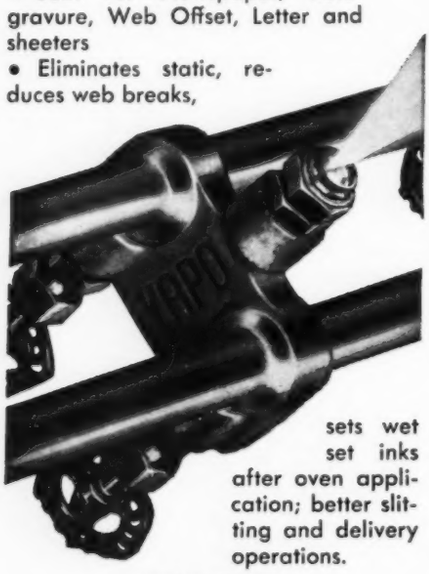

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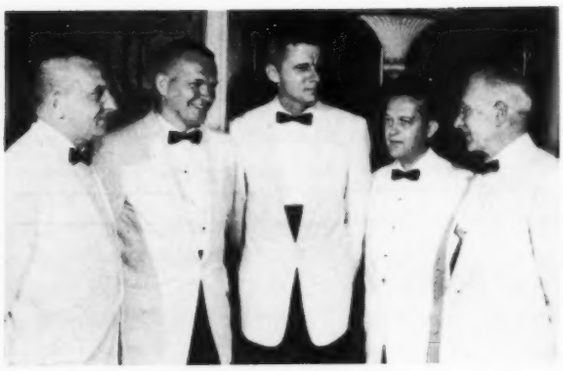
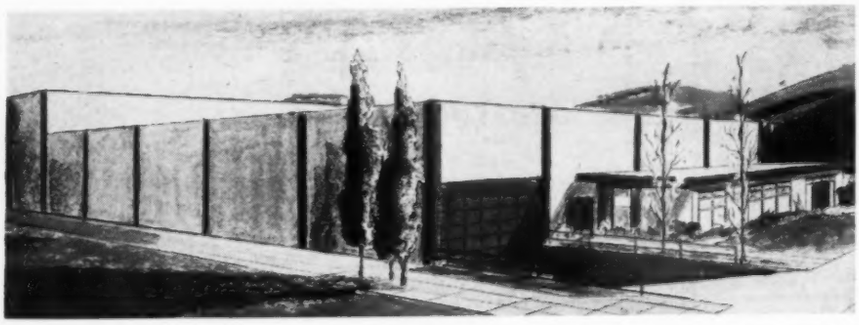


PICA Elects Officers – Shown are the officers of the Printing Industry of the Carolinas. Left to right, are: William Harley, R. L. Bryan Co., Columbia, S. C., ex-officio; Thomas Reese, Hickory Printing Co., Hickory, N. C., vice president; Fred Little, Jr., Wilmington Printing Co., Wilmington, N. C., president; Braxton Flye, Graphic Press, Inc., Raleigh, N. C., secretary-treasurer, and Eugene H. Salmon, executive secretary.

GRAPHIC VIEWS

of the Printing Industry

Goss Refreshes Representatives—Shown is a group of representatives of Goss Company, Div. Miehle-Goss-Dexter, Inc., who recently completed a refresher course in various phases of web offset newspaper production at the Chicago Lithographic Institute. Shown, left to right, are: Richard Schneider, Wally Matthes, George Moldenhauer, Ted Behr, Hank Henry—all of Goss, and Gene Bulinski, instructor.



Bingham Opens Bay Area Plant on West Coast—An open house for the Graphic Arts industry was held early in September at the new roller plant of Sam'l Bingiham's Son Mfg. Co. in San Leandro, Calif. The plant, at 835 Fremont Ave., has been in operation for several months. Jim Lawless is the company's West Coast sales manager, and Bill Strange is the San Leandro plant manager.

Rhodes Wins RIT-SQC Award—Warren L. (Dusty) Rhodes, left, director of Graphic Arts Research Dept., Rochester Institute of Technology, Rochester, N.Y., receives the fourth annual RIT-SQC Award, during the recent Quality Control Seminar at RIT. Presenting the award is Alfred L. Davis, vice president for development and public relations at RIT.

Printing Firm Has Rolling Mail Box—Hub Mail Printing Corp., Boston, keeps its name before the public via this rolling, 11 ft. high mail box, which serves as a delivery truck. At left is Melvin Rivkind, of Hub Mail.

Honored by Master Printers—Donald E. Sommer (right) was honored at the first Craftsmen's Award Banquet by the Master Printers Div., Printing Industry of Washington, D. C., for his help in forming the division. He is presented with a copper plaque by Joseph Hennage, Jr., president, Hennage Lithograph Co., Washington.

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- Insulated hood and cover for heating efficiently and reducing dross formation.
- Compact rectangular design, location of ingot molds in the base plus the front loading feature of the EasyLoader allows the complete unit to be installed in a corner or flush against a wall. Floor space requirements —78" wide x 48" deep.

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